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Career Progression of Minority and Women Officers

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Foreword

This report had its genesis in a series of Secretary of Defense initiatives to build on past equal opportunity successes in the Department of Defense and the Military Services. Policy review and direction were provided by the Office of the Assistant Secretary of Defense for Force Management Policy. Research staff work and contract oversight were undertaken in the Office of the Deputy Under Secretary of Defense for Program Integration.

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Executive Summary

The American Military is widely viewed as a pioneer in providing equal opportunity for its uniformed members. From the 1948 Executive Order signed by President Harry S. Truman that formally began the long process of racial integration to more recent admission of women into most military occupational specialties, the Military Services have compiled a record of providing equal opportunity that often exceeds the progress of civilian society.

That record has been achieved only through constant effort and self-examination, and it will be maintained and improved only through continuing effort. It is in this spirit of self-examination and improvement that this study was undertaken.

The study reviews the key stages of officer career progression: recruiting, commissioning, training, assignment, evaluation, promotion, and retention. It is limited to active duty commissioned officers in the four military branches of the Department of Defense, and examined data collected through 1997. The study employed several approaches to analyzing the career progression of minority and female officers, including trend analysis, statistical modeling, and focus groups and interviews.

This report sets out the findings of the study and suggests a number of actions that could be taken to improve the process of providing equal opportunity to minority members and women in the officer corps.

Demographic Characteristics of the Officer Corps

There were about 212,000 active-duty commissioned officers in 1997, with two-thirds of them in the Army and Air Force. The distribution of officers by grade shows that four out of five were at the level of O-1 through O-4 (2nd lieutenant/Navy ensign to major/Navy lieutenant commander), with the majority of these at O-3 (captain/Navy lieutenant). Less than one-half of one percent were in the very highest grades of O-7 through O-10—general and flag officers—reflecting the pyramidal structure of the military organization.

Eligibility for promotion is directly related to an officer's tenure in the military; as a result, changes in representation among all groups at the highest ranks occur relatively slowly. For example, in 1973 at the inception of the All-Volunteer Force (AVF), Blacks comprised 2.8 percent of military officers. Those Black officers commissioned in 1973 would only now (1999) be ascending to general and flag officer ranks. At the same time, those commissioned in 1997—when Black representation had risen to 7.5 percent—would likely see the first of their peers promoted to O-7 around the year 2023.

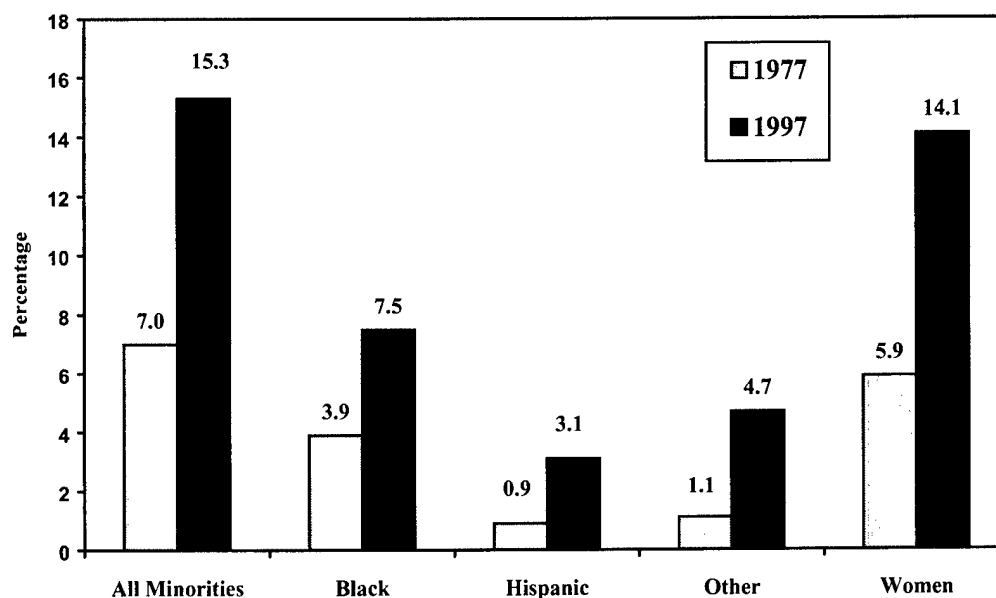
Major Findings

The report details a rich array of information that will be valuable to senior leaders of the Department of Defense and the Military Services in their continuing efforts to provide and improve equal opportunity. Below are excerpted a number of the major findings of the study.

Overall

- In the two decades from 1977 to 1997, representation of racial minorities and women among active duty commissioned officers more than doubled. (See figure below)
 - ❖ Minority representation rose from 7.0% to 15.3%.
 - ❖ Female representation rose from 5.9% to 14.1%.
 - ❖ These patterns of increasing minority and female representation held for all four Services as well.

**Minority and Female Active Duty Commissioned Officers (Total DoD):
Fys 1977 and 1997**



- There are no DoD-wide goals for commissioning minorities and women as officers, but the Services recognize the need for a diverse force and have separate accession objectives concomitant with their specific manpower requirements, and this approach has proved successful.

- Representation of minority members and women among active duty officers *increased* during the drawdown of military forces during 1987-1997, despite concerns that the reduction in forces would trigger a “last in, first out” phenomenon to the detriment of minorities and women.
- ❖ The representation of males declined from 89.0% to 85.9% during the 1987-1997 period.
- ❖ The percentage of women increased from 11.0% to 14.1%.
- ❖ White representation levels declined from 89.2% to 84.6%.
- ❖ Black representation rose from 6.5 to 7.5%.
- ❖ Hispanic officers increased from 1.7% to 3.1%.
- ❖ Other minority officers increased from 2.6% to 4.7%.

Officer Accessions

- The Services have been successful in accessing Black officer candidates in a greater proportion than their presence in the college-educated national population. In 1997, while Blacks accounted for 7.2 percent of college graduates 21-35 years old, they made up 8.5 percent of all officer accessions.
- A number of Service programs to identify potential minority candidates and assist them in obtaining a commission appear to play a part in success demonstrated through minority accession figures.
- For the future, the number of members who are college graduates in the nation aged 21-35 appears sufficiently large so Services should be able to provide representation comparable to the American population.
- Although the representation of Blacks among new officers has increased, they have been underrepresented among officers commissioned through the Military Academies and Reserve Officer Training Corps (ROTC) scholarship programs. This is significant since Academy training or ROTC backgrounds (often with technical training provided by scholarships) have been important for advancement in the military. Women have been similarly underrepresented from these sources.
- Many minority members, and, to a lesser extent, women may start their careers at a disadvantage because of pre-entry differences in academic achievement and lower representation in fields of study of most interest to the military.

Job Assignments

- Women and minority officers tend to be concentrated in administration and supply areas, and underrepresented in tactical operations, the area that yields two-thirds of the general and flag officers of the Services.
- Minority representation in aviation has risen recently, but remains low. Aviation is a greatly valued path for officers, bringing rewards and career opportunities in both the military and later in the private sector.
- Research suggests that the under-representation of minorities in aviation is rooted in the accession and training systems; e.g. proportionately few minorities are selected for aviation, and flight school attrition rates for minorities have been relatively higher.
- Achieving increased representation of minorities and women among general and flag officers will largely depend on increasing their numbers in career-enhancing occupations in lower ranks. Such assignments have been taking place with increasing frequency.

Performance Evaluation and Career Progression

- Compared to White men:
 - ❖ Promotion rates for White women are about the same
 - ❖ Promotion rates for Black men and women are lower up to the critical O-4 point, then about the same thereafter
 - ❖ Black men generally remain on active duty longer
- Overall, the net effect of these patterns is:
 - ❖ Black men and White men have similar tenure on active duty
 - ❖ Black and White women leave military service earlier on average than White men
- A number of factors other than job performance were identified as possible contributors to differing promotion rates for minorities and women:
 - ❖ Educational/precommissioning preparation
 - ❖ Initial assignments contributing to a “slow start”
 - ❖ Limited access to peer and mentor networks
- Disproportionate assignment of Black officers, to the extent that it exists, to positions in recruiting, ROTC, and equal opportunity—while intending to boost minority recruiting—pulls them from their operational units and may actually hinder their career progression.

- Some Black officers feel they have more difficulty building competitive performance records for review by promotion boards. However, nearly all officers believed promotion boards are fair, given the information presented.

Perceptions and Equal Opportunity

- Some minority and female members believe they are held to a higher standard than majority race/male colleagues and, especially women, believe that they must pass “tests” to demonstrate their worth on the job.
- Officers who felt they had been discriminated against generally believed that the act was committed by an individual rather than by the institution.
- Many women and minority officers felt that, overall, they had been treated fairly and that the equal opportunity climate was not better, and probably worse, in the private sector.

Substantial, continuing efforts to provide equal opportunity have proved to be effective in contributing to the success of the All-Volunteer Force. The recruitment, selection, assignment, training, retention, and development of qualified men and women from diverse racial/ethnic backgrounds, while challenging, are both required by the demands of fairness and by the demands for maintaining the highest levels of individual productivity and military readiness.

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Chapter Introduction

The American Military is often hailed as a pioneer of equal opportunity among the nation's institutions—blazing a trail for racial and ethnic integration in military units and occupational specialties, and for the employment of women in nontraditional fields. The integration of Black Americans in the military is a prime example.¹ “It began in 1946, was spurred on by President Truman’s 1948 Executive Order, and was finally achieved in 1954—a full decade before the omnibus Civil Rights Act of 1964.”² “The military had a head start in terms of desegregation, and ... most informed observers agree that [it] ... leads the nation ... and is still ahead of most civilian institutions in terms of providing equal opportunities to minorities.”³ “In no other American institution has [B]lack achievement been so notable.”⁴ Evidence of the military’s continuing interest in equal opportunity can be found in its many efforts at self-improvement over the years, as well as in its constant monitoring of programs, scrutiny of trends in population representation, internal surveys and studies of its personnel, and aggressive approach to management training.⁵

Notwithstanding these achievements, few would maintain that the military’s work is done. Thus, the Department of Defense and the Military Services continue to expand efforts to ensure that the military is strengthened by the contributions of men and women with diverse racial, ethnic, and cultural backgrounds. To this end, this report documents officer career progression patterns and recommends ways to improve the flow of minority and female officers from recruitment through general and flag officer ranks.

¹ Stephen E. Ambrose, “The Military and American Society: An Overview,” in Stephen E. Ambrose and James A. Barber, Jr., eds., *The Military and American Society* (New York: The Free Press, 1972), p. 16.

² Mark J. Eitelberg, “Military Manpower and the Future Force,” in Joseph Kruzel, ed, *American Defense Annals, 1993* (New York: Lexington Books, 1993), p. 147.

³ Edwin Dorn, “Blacks in the Military,” *Government Executive*, February 1991, p.28; and “Integrating Women into the Military,” *The Brookings Review*, Fall 1992, p.5.

⁴ Charles C. Moskos, “Recruitment and Society after the Cold War,” in Mark J. Eitelberg and Stephen L. Mehay, eds., *Marching Toward the 21st Century: Military Manpower and Recruiting* (Westport, CT: Greenwood Press, 1994), p. 143.

⁵ The military’s aggressive approach is highlighted in *Review of Federal Affirmative Action Programs, Report to the President* (Washington, DC: Government Printing Office, July 19, 1995), Section 7. A General Accounting Office report also reviews *DoD Studies on Discrimination in the Military*, NSIAD-95-103 (Washington, DC: GAO, April 1995). The Defense Equal Opportunity Management Institute (DEOMI), successor to the Defense Race Relations Institute (created in 1971), has trained more than 13,000 equal opportunity service advisors and advises DoD on equal opportunity policy. DEOMI also supervises administration of the Military Equal Opportunity Climate Survey. DoD requires each Service to maintain and review affirmative action plans and to complete an annual “Military Equal Opportunity Assessment” report. DoD conducts numerous other surveys, including a recent evaluation of sexual harassment. The Directorate for Accession Policy, Office of the Secretary of Defense, publishes an annual report on military “population representation” (first issued in 1974), that contains a wide array of information related to equal opportunity concerns. These are just a few of the *many* activities that support the military’s efforts in behalf of equal opportunity. A critical review of the military’s achievements can be found in James Kitfield, “Preference and Prejudice,” *Government Executive*, June 1995, pp. 23-26, 29, 64.

President Clinton, among many others, has praised the American Armed Forces as a model of equal opportunity, noting that “there are more opportunities for women and minorities [in the military] than ever before, [with] over 50 generals and admirals who are Hispanic, Asian, or African American.”⁶ Indeed, the President’s *Affirmative Action Review* praised today’s military leadership for its full commitment to equal opportunity.⁷ “[T]he military has made significant progress [providing] increased opportunities for minorities, ... although more remains to be done, particularly for women.”⁸

It is also clear to those who have studied the Armed Forces that differentials in representation still exist, despite the military’s successes of the past several decades. Specific areas of concern are (1) the low representation of minorities and women at the flag and general officer ranks; (2) the relative underrepresentation of women and minorities in certain career tracks (such as aviation); and (3) the apparent differences in perceptions between Whites and minorities, and between men and women about evaluations, promotions, and assignments. This study addresses these concerns as well as other related issues.

he Officer Pipeline

This report represents a review of the programs and processes by which women and minorities become officers, pursue their careers, and advance through the ranks. Officer career progression begins within American society—in the general population of young people qualified, available, and interested in joining the military and becoming officers—and it continues through the highest levels of military leadership for a small fraction of those who entered.

An individual’s progression through the military’s officer corps can be marked at points of recruiting, precommissioning, commissioning, promotion, and retention. Unlike the practices of other organizations or employers in American society, entry into the military occurs almost exclusively at the junior enlisted and officer grades—with very limited lateral entry.

Aside from direct appointments—for persons who are professionally qualified in medicine or other health fields, in law, and as chaplains—commissioned officers begin their military career at the lowest grade. No one is “hired” to be a major or colonel or admiral. Senior positions in the organization’s rank structure are filled through a system that advances personnel strictly from within, based on time in service, ability, and performance criteria. Thus, the military’s majors, colonels, and admirals must be a subset of the human resources that enter the system at its origin.

As of Fiscal Year 1997, there were 62 members of racial or ethnic minorities serving in the general or flag officer grades in the active duty Armed Services, representing 7 percent of all

⁶ Bill Clinton, “Remarks by the President on Affirmative Action,” The Rotunda National Archives, July 19, 1995. See also Charles C. Moskos and John S. Butler, *Be All You Can Be: Racial Leadership and Equality the Army Way* (New York: Basic Books, 1996), and Martin Binkin, *Who Will Fight the Next War: The Changing Face of the American Military* (Washington, DC: Brookings Institution, 1993).

⁷ *Affirmative Action Review: Report to the President*, The White House, July 19, 1995.

⁸ *Ibid.*, pp. 40, 42, 44.

general and flag officers. At the same time, there were 20 women officers at this level, accounting for just over 2 percent of all general and flag officers. It takes about 26 years—based on historical averages—for an officer to become an O-7 (a “one-star” general or admiral) from the time of commissioning. Consequently, the 1997 population of women and minority generals and admirals likely entered the officer corps in 1971 or earlier.

Officer career progression for women and minorities has changed dramatically over the years since today’s senior leaders were first commissioned. As of 1997, there were 4,092 women in paygrade O-1 (14 percent of all O-1s) and 4,882 racial/ethnic minorities (20 percent of all entry-grade officers). A portion of these young officers will progress through the system and one day rise to be generals or admirals. That day will likely occur around the year 2023. The challenge is to provide equal opportunities for all members who perform at a high level and desire a full military career.

Antecedents of Change

Although this report does not review the full history of women and minorities in the military’s officer corps, it highlights changes that have occurred with respect to women and minorities in the military and the way in which opportunities for the full participation of these groups have expanded. America’s first Black general officer was Benjamin O. Davis, who initially entered the Army in 1898 and was promoted to the rank of brigadier general 42 years later at the age of 64.⁹ The first woman general officer was not appointed for another 30 years. In June 1970, Anna Mae Hays, Army Nurse Corps, and Elizabeth P. Hoisington, Director of the Women’s Army Corps, became the Army’s first female brigadier generals. These three cases of “firsts” for the military—one racial minority and two women—are separated by decades of history as well as very different circumstances or conditions of service.

When Benjamin O. Davis was nominated by President Franklin Roosevelt to become the Army’s first Black general, the opportunities for Blacks to serve as commissioned officers were severely limited.¹⁰ By the end of World War II, records showed that there were 7,768 Black commissioned officers—representing less than 1 percent of Blacks in the Army, compared with approximately 11 percent for Whites. Army policy during the war restricted Black officers to certain units and grades and stipulated that no White officer could be outranked by a Black officer in his unit. This particular policy often operated to keep Black officers from advancing above the rank of lieutenant—leaving only seven Blacks among the Army’s 5,220 colonels and Davis as the sole Black among the Army’s 776 generals throughout the Second World War.¹¹

The opportunities for women, too, were limited in the officer corps. Prior to 1967, women could not be promoted to general and flag grades. There were limited opportunities for promotion to O-6, and restrictions on the number of women who could serve: an overall 2-percent ceiling on women in the military, a 10-percent ceiling on the numbers of female regular

⁹ Ulysses Lee, *United States Army in World War II, Special Studies: The Employment of Negro Troops* (Washington, DC: U.S. Government Printing Office, 1966), p. 79.

¹⁰ See Jack D. Foner, *Blacks and the Military in American History* (New York: Praeger Publisher, 1974), p. 146.

¹¹ *Ibid.*, p. 150.

officers who could serve as permanent O-5s, and a 30-percent limit on Navy female line officers in grades above lieutenant.

Racial/ethnic minorities other than Blacks—including persons of Hispanic descent, Native Americans, Asian/Pacific Islanders, and others—suffered through many of the same exclusionary practices that affected Blacks.¹² During World War II, for example, second- and third-generation Japanese Americans who joined the military were viewed with distrust and assigned to all-Nisei units. It was not until 1976 that the first Japanese American, Theodore S. Kanamine, rose to the rank of a general officer in the Army. The first Hispanic American to ascend to this level was David G. Farragut, appointed as an Admiral of the Navy in 1866 after a brilliant career during the Civil War, but it would then take another 100 years for the next Hispanic American to be appointed as a general officer: Richard E. Cavazos, who went on to become the Army's first Hispanic four-star general.

When considering the progress and prospects for minorities and women in the officer corps, it is important to note that the two groups face somewhat different issues in their career progression. Whereas equal opportunity and treatment are consensual goals in the case of racial/ethnic minorities, debate continues within the Defense community about the appropriate roles for women in the military.

The level and degree of participation by women are influenced by many factors, including gender differences in qualifications, career interests, concerns about unit cohesion, and combat restrictions. There have been no institutional restrictions on career fields or assignments for Blacks and other minority males since President Truman signed Executive Order 9981 in 1948. Although restrictions have been removed for women over time (most notably in the 1992-94 period), women are still subject to the combat exclusion restriction from about 30 percent of Army and Marine Corps jobs; in contrast, they can perform in all but 1 percent of Air Force and 9 percent of Navy jobs.¹³

Study Scope and Methodology

This report reviews the key stages of officer career progression: recruiting, commissioning, training, assignment, evaluation, promotion, and retention. It is limited to active duty commissioned officers in the four military branches of the Department of Defense. By definition, this excludes reservists, warrant officers, limited duty officers, and members of the Coast Guard.

The study employs several approaches to analyze the career progression of minority and female officers. Descriptive statistics covering the period 1973 to 1998 are used to show the trends by Service and paygrade in minority and female representation in the officer corps.

¹² Members of other groups—including persons of ethnic origins not listed here, members of various minority religious groups, and so on—may likewise have experienced prejudice at various times in U.S. history. This discussion does not intend to slight these groups, but rather to limit the study focus to larger categories of minorities defined by race, ethnicity, or gender.

¹³ For an extensive discussion of the integration of women in the military, see *Race and Gender Differences in Officer Career Progression* (Santa Monica, CA: RAND, forthcoming), Chapter 5. See also Margaret C. Harrell and Laura L. Miller, *New Opportunities for Military Women: Effects upon Readiness, Cohesion, and Morale* (Santa Monica, CA: RAND, 1997), Chapter 2.

Similarly, the patterns in recruiting, commissioning, training, and assignment to military occupations are presented in tables and graphical formats that emphasize the important trends over the past 25 years.

To estimate the overall differences in officer retention and promotion rates between majority white men and women and minorities, the study uses multiple regression techniques. Data from more than 76,000 officers who entered in selected years from 1967 to 1991 were analyzed. Promotions were tracked through the O-6 level and excluded direct commissions (health professionals, lawyers, and chaplains) which, because they are managed separately, their service experiences are generally dissimilar from those of most other officers. To further investigate whether differences in promotion rates may be due to race/ethnicity or gender, statistical models were estimated for Navy and Marine Corps officers in selected year groups from 1985 to 1990 (Navy) and 1993 to 1994 (Marine Corps) using detailed data from the officer evaluation (or fitness) reports.

Finally, the study used data collected from interviews and focus groups with officers and other individuals to obtain information about how the officer career and promotion system is intended to run, how it is perceived to operate, and how it actually operates. For this part of the analysis, direct commissions again were excluded.

Organization of the Report

The following chapter provides a brief overview of the participation of women and minorities in the military's officer corps, followed by a description of the current composition and the effects of the recent Defense drawdown. Chapter 3 highlights the initial stage of the officer pipeline—recruitment—and compares certain characteristics of military personnel with their civilian counterparts. Chapter 4 provides a discussion of job assignment with special emphasis on minorities and women in aviation. Chapter 5 examines the relationship between race and gender and the probabilities of promotion and retention. Chapter 6 describes the officer evaluation system and its role in promoting equal opportunity. Chapter 7 discusses women and minority officers' perceptions regarding equal opportunity. Conclusions and recommendations are presented in Chapter 8.

Chapter

Overview of the Officer Corps

The number and percentage distribution of active duty officers for selected years are shown in Table 2-1. End-strength of the officer corps was just above 300,000 at the inception of the All-Volunteer Force (AVF) in 1973. It declined through the late 1970s, and then increased to more than 290,000 by 1986—the result of a planned defense buildup. The defense downsizing, begun in the late 1980s, reduced the force again to its 1997 officer strength of about 212,000.

Table 2-1. Number and Percent of Active Duty Commissioned Officers by Service and Selected Fiscal Years: 1973, 1986, and 1997

Service	Fiscal Year		
	1973	1986	1997
Army			
Number	101,194	94,845	67,994
Percent	33.7	32.5	32.0
Navy			
Number	66,337	68,922	54,382
Percent	22.1	23.6	25.6
Marine Corps			
Number	17,784	18,734	16,002
Percent	5.9	6.4	7.5
Air Force			
Number	114,962	109,051	73,984
Percent	38.3	37.4	34.8
Total DoD			
Number	300,277	291,552	212,362
Percent	100	100	100

Source: Defense Manpower Data Center.
Column percentages may not add to 100% due to rounding.

The grade structure of the officer corps as of 1997 can be seen in Table 2-2. About four out of five officers in the active duty military served in the grades of O-1 through O-4, with the majority of these at the grade of O-3. The percentage distribution of officers by pay grade would be almost bell-shaped from O-1 through O-5 except for a modest bulge at O-4. A relatively small proportion of officers (about 5 percent) are found in the grade of O-6, whereas fewer than one-half of one percent are in the flag and general officer grades of O-7 through O-10.

The Defense Officer Personnel Management Act (DOPMA) has provided for an officer management system shared by all Services since 1981. DOPMA contains specific rules relating to the training, appointment, promotion, separation, and retirement of military officers. For example, DOPMA regulates the number of officers allowed in each grade above O-3, thus

Table 2-2. Percentage Distribution of Active Duty Commissioned Officers by Pay Grade and Service: FY 1997

Pay Grade	Rank: Army, Marine Corps, Air Force (Navy)	Army	Navy	Marine Corps	Air Force	All Services
O-1	Second Lieutenant (Ensign)	13.6	11.6	15.7	9.1	11.7
O-2	First Lieutenant (Lieutenant Jr. Grade)	13.3	11.9	16.0	10.4	12.1
O-3	Captain (Lieutenant)	34.4	36.8	32.7	40.1	36.9
O-4	Major (Lieutenant Commander)	19.5	20.0	20.6	21.3	20.3
O-5	Lieutenant Colonel (Commander)	13.4	13.1	10.7	13.6	13.2
O-6	Colonel (Captain)	5.4	6.2	3.9	5.2	5.4
O-7 – O-10	General/ Admiral	0.5	0.3	0.5	0.3	0.4
Total		100	100	100	100	100

Source: Defense Manpower Data Center.
Column percentages may not add to 100% due to rounding.

setting the officer grade distribution of the Services. DOPMA also sets the standards for the treatment of Regular and Reserve commissions, officer tenure rights, and a system of promotion that will ensure, in peacetime, a youthful, vigorous, fully combat-ready officer corps.¹⁴ This system of promotion operates according to a basic principle of “up or out,” described in a 1993 assessment of DOPMA by RAND:

The “up” portion of the “up or out” system provides that, in general, officers move through the system in “cohorts” originally determined by the year of commissioning, and compete for promotion to the next higher grade against other members of the group at set years-of-service (YOS) points. The “out” portion of the “up or out”

¹⁴ From House Report No. 96-1462, p. G350 as quoted in Bernard Rostker et al., *The Defense Officer Personnel Management Act of 1980: A Retrospective Assessment*, R-4246-FMP (Santa Monica, CA: RAND, 1993). For more detail, see Public Law 96-513, *Defense Officer Personnel Management Act*, November 1980.

system provides that “officers twice passed over for promotion, after a certain number of years, depending upon their particular grade, are to be separated from active service, and if eligible retired.”¹⁵

It should also be noted that DOPMA allows for the *selective continuation* of officers who have twice failed to be promoted as well as for the *selective early retirement* of officers in pay grades O-5 and O-6, the latter used as a force-shaping tool during the recent downsizing. Table 2-3 shows the promotion opportunities and the timing of promotion in terms of years of service that were intended by DOPMA. The standards for career progression are intended to provide the points at which officers who are in the “primary zone” would typically be promoted, everything else being equal. In addition, DOPMA allows for the earlier or later promotion of officers in two categories:

- “below the zone” — provides for early selection of officers before their “primary zone” who have demonstrated outstanding potential.
- “above the zone” — provides for the further consideration of officers who have failed to be promoted in their “primary zone.”

Table 2-3. DOPMA Up-or-Out Promotion System for “Due-Course” Officers

Officer Pay-Grade	Promotion Opportunity (percentage promoted from surviving cohort)	Promotion Timing (primary zone years-of-service)	Career Expectation	Career Pattern (cumulative probability to grade from original cohort less attrition)
O-4	80%	10±1	Twice nonselected & separation or may be allowed to stay until 24 YOS; normal retirement at 20 YOS	66%
O-5	70%	16±1	30% of twice nonselectees can be retired before normal (28 YOS) retirement	41%
O-6	50%	22±1	Normal retirement at 30 YOS, but 30% early retirement possible after 4 years in grade ^a	18%

Source: B. Rostker et al., *The Defense Officer Personnel Management Act of 1980: A Retrospective Assessment*, R-4246-FMP (Santa Monica: RAND, 1993), p. 14.

^a Both O-5s and O-6s could experience a more than 30-percent early retirement if considered more than once prior to reaching mandatory retirement.

The vast majority of officers selected for promotion are in the “primary zone.” In 1990, for example, only about 8 percent of officers selected for promotion to O-4 were considered from “below zone,” 5 percent were “above zone,” and 87 percent were “primary zone.”¹⁶

For newly commissioned officers who complete basic military and advanced occupational training, promotion from O-1 to O-2 is virtually automatic. In contrast, promotions to O-3 and O-4 are considered competitive since candidates face a promotion board review process. In reality, though, O-3 promotion is essentially assured since DOPMA sets the promotion rate goal at 95 percent. In contrast, promotion to O-4 is the first truly competitive

¹⁵ Rostker et al., *The Defense Officer Personnel Management Act of 1980: A Retrospective Assessment*, p. 12.

¹⁶ Ibid., p. 15.

point as 20 percent of officers reviewed by the promotion board will not be selected. Further, attainment of the senior ranks of O-5 and O-6 requires demonstration of a sustained high level of performance overall, as well as in difficult or key assignments, to include Joint Duty. To be competitive, officers must also acquire certain credentials—professional military education courses and/or other civilian advanced degrees. Approximately half of all serving O-5 officers will be selected for O-6.

Demographic Characteristics of the Active Duty Officer Corps

Of the 212,362 officers on active duty at the end of fiscal year 1997, 30,041 were women, representing 14.1 percent of the total. The overall proportion of women officers is the highest in the Air Force (16.2 percent), followed by the Army and the Navy (14.2 percent each). The smallest proportion is found in the Marine Corps, where 668 women accounted for 4.2 percent of all officers (see Table 2-4).

Table 2-4. Number and Percent of Active Duty Officers by Pay Grade, Service, and Gender: FYs 1987 and 1997

Pay Grade and Service	Total Number		Percent (1987)		Percent (1997)	
	1987	1997	Male	Female	Male	Female
O-1 through O-3						
Army	59,636	41,893	84.7	15.3	84.1	15.9
Navy	43,760	32,764	87.9	12.1	85.3	14.7
Marine Corps	13,211	10,310	96.3	3.7	95.1	4.9
Air Force	68,944	44,100	84.7	15.3	81.1	18.9
All Services	185,551	129,067	86.3	13.7	84.3	15.7
O-4 through O-6						
Army	33,101	25,788	93.6	6.4	88.4	11.6
Navy	25,051	21,396	92.4	7.6	86.6	13.4
Marine Corps	5,449	5,612	97.8	2.2	97.1	2.9
Air Force	38,064	29,611	94.6	5.4	87.6	12.4
All Services	101,665	82,407	93.9	6.1	88.2	11.8
O-7 through O-10						
Army	408	313	99.0	1.0	98.4	1.6
Navy	260	222	98.8	1.2	96.4	3.6
Marine Corps	70	80	98.6	1.4	98.8	1.3
Air Force	319	273	99.4	.6	97.8	2.2
All Services	1,057	868	99.1	.9	97.7	2.3
All Pay Grades						
Army	93,145	67,994	88.0	12.0	85.8	14.2
Navy	69,071	54,382	89.6	10.4	85.8	14.2
Marine Corps	18,730	16,002	96.8	3.2	95.8	4.2
Air Force	107,327	73,984	88.2	11.8	83.8	16.2
All Services	288,273	212,362	89.0	11.0	85.9	14.1

Source: Defense Manpower Data Center.

Percentages may not add to 100% due to rounding.

Within each Service, the highest concentration of female officers can be found in the junior grades of O-1 through O-3. Here, women accounted for almost 19 percent of Air Force officers and nearly 16 percent for all Services combined. At the same time, the proportion of women in pay grades O-4 through O-6 declines somewhat (11.8 percent overall) and then tapers off to 2.3 percent among general and flag officers. A decade ago (1987), women represented only about 6 percent of officers in pay grades O-4 through O-6 and less than 1 percent (nine women in all) in flag and general officer grades.

At the end of fiscal year 1997, there were 32,669 minority officers (or 15.3 percent of the total) serving on active duty (see Table 2-5). About one half (15,971) were Black, over 6,600 were Hispanic, and nearly 10,100 were Asian Americans, Native Americans, or other minorities. The proportion of Black officers is the highest in the Army (11.0 percent); the proportion of Hispanics is highest in the Marine Corps (4.1 percent). As with women, the proportion of

Table 2-5. Number and Percent of Active Duty Officers by Pay Grade, Service, and Race/Ethnicity: FYs 1987 and 1997

Pay Grade and Service	Total Number		White		Black		Hispanic		Other	
	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997
O-1 through O-3										
Army	59,636	41,893	82.4	80.0	12.9	11.4	1.5	4.0	3.1	6.0
Navy	43,760	32,764	90.8	82.2	4.0	7.0	2.3	4.6	3.0	6.2
Marine Corps	13,211	10,310	91.0	84.4	5.1	6.8	2.1	5.2	1.8	3.6
Air Force	68,944	44,100	88.3	86.0	6.5	6.0	2.4	2.0	2.8	6.0
All Services	185,551	129,067	87.2	83.0	7.9	8.1	2.0	3.6	2.9	5.8
O-4 through O-6										
Army	33,101	25,788	89.7	83.1	6.2	10.6	1.2	2.7	2.6	3.6
Navy	25,051	21,396	95.2	90.2	2.2	3.9	1.0	2.5	1.6	3.4
Marine Corps	5,449	5,612	95.1	91.9	3.0	4.2	.9	2.2	1.0	1.7
Air Force	38,064	29,611	93.5	89.1	3.1	5.9	1.4	2.3	2.0	2.7
All Services	101,665	82,407	92.8	87.7	3.9	6.7	1.2	2.5	2.2	3.1
O-7 through O-10										
Army	408	313	92.1	90.1	6.9	8.6	0.2	0.6	0.7	1.6
Navy	260	222	95.7	96.4	2.0	2.7	1.2	0.5	1.2	0.5
Marine Corps	70	80	98.6	95.0	1.4	3.8	0.0	1.3	0.0	0.0
Air Force	326	273	98.2	93.0	1.2	3.3	0.3	1.8	0.3	1.8
All Services	1,064	888	95.3	93.0	3.6	5.1	0.5	1.0	0.7	0.9
All Pay Grades										
Army	93,145	67,994	85.2	80.5	10.6	11.0	1.4	3.4	3.5	5.0
Navy	69,071	54,382	92.1	85.4	3.4	5.8	1.0	3.8	2.5	5.1
Marine Corps	18,730	16,002	92.3	87.1	4.4	5.9	1.8	4.1	1.5	2.9
Air Force	107,334	73,984	90.1	87.3	5.4	5.9	2.0	2.1	2.5	4.6
All Services	288,280	212,362	89.2	84.6	6.5	7.5	1.7	3.1	2.6	4.7

Source: Defense Manpower Data Center.

Percentages may not add to 100% due to rounding.

minorities generally decreases in the higher grades. For example, just over 8 percent of all officers in pay grades O-1 through O-3 are Black, compared with under 7 percent in grades O-4 through O-6, and 5.1 percent in grades O-7 through O-10. Overall, 7 percent of general and flag officers were minorities as of 1997, up significantly from 4.8 percent in 1987. Note that in

1997, the Air Force had a slightly higher percentage of Hispanic officers in pay grades O-4 through O-6 than in O-1 through O-3.

A partial explanation of differential representation in the upper ranks relates to the fact that promotion is dependent on an individual's tenure, and much of the progress in minority and women recruitment is still relatively recent. The progress of Blacks illustrates this point. In 1973, Blacks comprised about 2 percent of all active duty officers (4 percent of officers in the Army, 1 percent in the Navy, 2 percent in the Marine Corps, and just under 2 percent in the Air Force). By 1980, the proportion of Blacks was up to 5 percent; in the Army, it was up to 7 percent, and was between 2 and 5 percent in the other Services. The Black officers who were commissioned in 1973 would only now (1999) be ascending to general and flag officer ranks; and a share of those who entered in 1980 would be promoted to O-5.

The relatively greater concentration of women and minorities in the lower ranks can be seen in Table 2-6. The proportion of White men and women in pay grades of O-4 and above is consistently greater than those of minorities of the same gender. It is also important to note that there are proportionately more men than women—regardless of racial/ethnic group—in pay grades beyond the level of O-3. This reveals the effects of relatively recent increases in the proportion of women entering the officer corps (commissioning) and, perhaps, higher rates of personnel turnover among female officers.

Table 2-6. Percentage Distribution of Active Duty Officers by Pay Grade, Gender, and Race/Ethnicity: FY 1997

Gender and Racial/Ethnic Group	Pay Grade		
	O-1 thru O-3	O-4 thru O-6	O-7 thru O-10
Male			
White	58.3	41.2	0.5
Black	63.5	36.2	0.4
Hispanic	69.3	30.6	0.2
Other	73.8	26.1	0.1
All Groups	59.7	39.9	0.5
Female			
White	66.4	33.6	0.1
Black	69.3	30.7	—
Hispanic	70.1	29.9	0
Other	77.4	22.6	0.1
All Groups	67.6	32.4	0.1

Source: Defense Manpower Data Center.

-- Less than 0.1 percent.

Rows may not add to 100% due to rounding.

A Note on the Defense Drawdown

A salient factor thought to have an adverse effect on officer recruitment and career progression was the recent drawdown of the military forces—a reduction of over 25 percent among officer personnel alone between fiscal years 1987 and 1997. Downsizing of a military

organization is in many ways more complicated than in the corporate world, largely because of the need to maintain both a balanced force structure and a supply of junior personnel to one day become senior leaders. It is also more complicated in the military because of the implied contract of career service that the organization has extended to its members who perform well—thus placing great emphasis on force reduction through voluntary separation.

In the early days of the defense drawdown, there was a great deal of concern that the careers of women and minorities would be disproportionately affected by any reduction in force strength. This concern related in part to the understanding that many opportunities for women and minorities in the officer corps are relatively recent, and these groups would be subject to the “last hired, first fired” phenomenon. It also emanated from the notion that women and minorities tended to be concentrated in occupational areas that were outside of the “command loop,” would be less competitive for promotions, and were most likely to be targeted for force cuts. Additionally, there was some apprehension that selectivity for precommissioning programs—particularly at the Academies and for ROTC—would intensify as the requirement for new officers was reduced, and that women and minorities would be disproportionately screened out.

These concerns were based primarily on speculation, since previous force reductions occurred during times when there was limited interest in military opportunities for women and minorities as well as during times when getting *out* was perhaps more highly valued than staying *in* (e.g., in the post-Vietnam demobilization). Also, previous drawdowns affected primarily draft-era service members whereas this most recent drawdown affected volunteers. The perception was that the military might have to break implicit, long-term contracts, and there was some civilian sector experience to fuel the fear. Indeed, a parallel wave of downsizing and corporate layoffs occurred during the military’s force reduction. Over the past decade, major corporations have laid off millions of employees and there were similar concerns over the fates of women and minorities.

However, as the defense downsizing drew to a close, it became clear that the force drawdown had no adverse effect on either minority or female officers; in fact, quite the reverse occurred. Data from fiscal years 1987 through 1997 show that, throughout the force drawdown, the proportion of White officers fell while the proportions of all minority groups rose (due mainly to increases in both the number and the percentage of these groups in the Navy and Marine Corps). Although the proportions of minorities are generally higher in the junior grades—reflecting continuing efforts to recruit more minorities—minority representation has increased in nearly every grade throughout the drawdown period.

As the total officer corps was reduced from about 288,000 to 212,000 over the 1987-1997 period, the number of White officers fell 30 percent (Table 2-5). Their proportion of the total fell from more than 89 percent to less than 85 percent. Although the number of Black officers fell as well (by only 15 percent), their proportion of all officers rose from 6.5 to 7.5 percent. The numbers of Hispanic and other minorities actually *grew* during this period, and their shares rose by 35 and 34 percent, respectively.

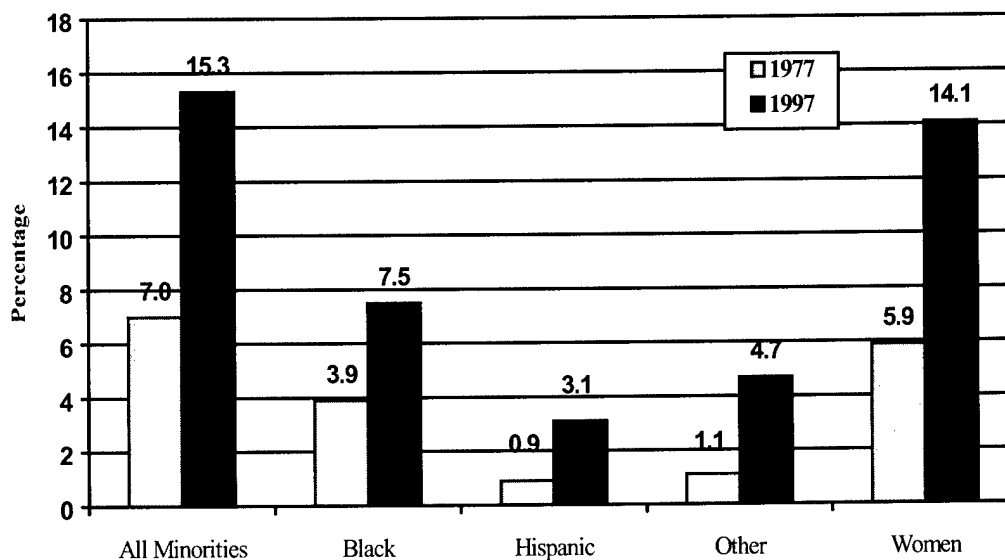
The proportion of women officers also rose during the drawdown (Table 2-4). Although the number of female officers fell slightly (almost 6 percent) between fiscal years 1987 and

1997, the decline was small compared with that of men (29 percent). As a result, representation of women in the officer corps rose from 11 percent to 14 percent over this period. At the same time, the proportion of women in pay grades O-4 to O-6 increased 90 percent over the drawdown period, and the proportion of those in O-7 to O-10 more than doubled. Increases in these pay grades were greatest in the Air Force and lowest in the Marine Corps. The military's downsizing experience, then, runs counter to the general trend in the civilian economy with considerable gains for both female and minority officers.

Long Term Trends

Over the past 21 years, there has been considerable improvement in the representation of minorities and women in the officer corps. In 1997, minorities accounted for 15.3 percent of all officers, up significantly from 7.5 percent in 1977. Among women, the increase in representation was also substantial—from 5.9 percent in 1977 to 14.1 percent in 1997. (See Figure 2-1).

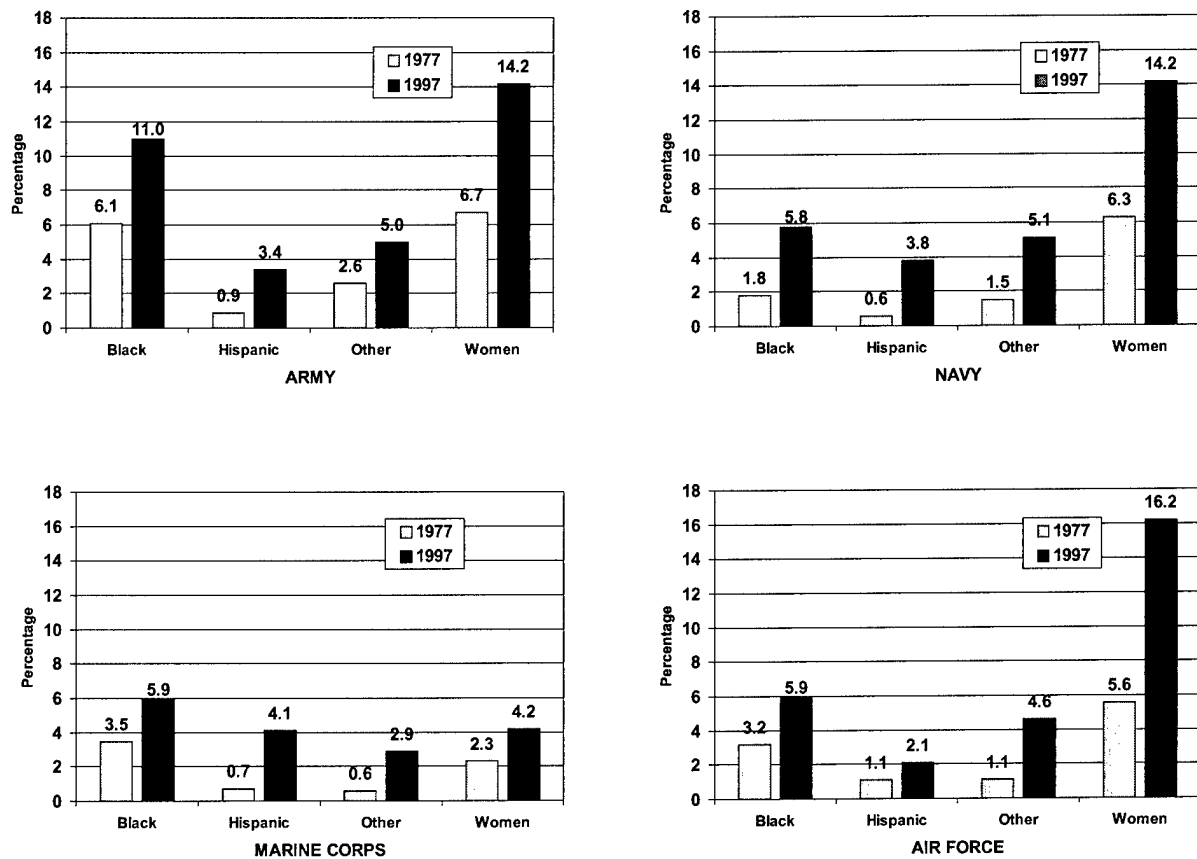
Figure 2-1. Minority and Female Active Duty Commissioned Officers - Total DoD: FYs 1977 and 1997



Source: Defense Manpower Data Center

Figure 2-2 highlights the progress for each of the Services, where an increase is evident for every race/ethnic group. Most dramatic in size is the Army, where Black representation among officers has increased from 6.2 percent to 11.0 percent over the 1977-1997 period. But the rate of increase was largest in the Navy where the proportion of Black officers grew from 1.8 to 5.8 percent over the same period.

Figure 2-2. Minority and Female Active Duty Commissioned Officers by Service: FYs 1977 and 1997



Source: Defense Manpower Data Center

Chapter

Officer Recruitment

Commissioning into the officer corps, as with any profession, is competitive, requiring substantial academic preparation and other accomplishments. This chapter describes the major officer entrance requirements and avenues. Data are presented on the sources of commissioning, trends in officer recruitment, and demographic characteristics of the civilian youth population which can present some barriers to minorities and women from entering and progressing through the officer corps. The chapter concludes with a description of the major targeted programs designed to expand the pool of minority and women candidates.

becoming an officer

A primary requirement for entry into the military's officer corps is attainment of a bachelor's degree from an accredited four-year college or university. Although there are some opportunities for a noncollege graduate to become a commissioned officer, virtually all officers in the active forces and most officers in the Reserve and National Guard today hold at least a baccalaureate degree. The Services are, in large part, successful in recruiting officer candidates with the requisite educational credentials by providing for that very education, in part or whole. Numerically, the primary pathway to becoming an officer is through the Reserve Officer Training Corps (ROTC) program established at over 1,200 civilian colleges and universities nationwide (either on site or through cooperative "cross-town" agreements). About one-half of officers commissioned through ROTC were the beneficiaries of a scholarship.

While accounting for a smaller proportion of newly commissioned officers than ROTC, the three Service Academies—the Military Academy in West Point, NY; the Naval Academy in Annapolis, MD; and the Air Force Academy in Colorado Springs, CO¹⁷—are generally considered the premier source of career officers. In addition, young men and women may be commissioned through Officer Candidate School or Officer Training School (OCS/OTS). In contrast to ROTC and Academy preparation, OCS/OTS represents a pathway for college graduates and is, therefore, of relatively short duration—10 to 16 weeks. A sizable proportion of Marine Corps officers (and a notable number of Navy officers) receive other scholarships through additional summer programs for college students such as the Marine Corps' Platoon Leaders Class or enlisted commissioning programs.

¹⁷ The Marine Corps does not have its own academy but draws about 16 percent of Naval Academy officers, which accounted for 11 percent of all Marine Corps officer accessions in FY 1997.

Another sizable contingent of officers, particularly among women, are those who are appointed for service in professional specialties. Depending upon their professional education or experience, such officers typically enter at a higher paygrade and their career progression is managed separately from other (line) officers. This category generally comprises professionals such as lawyers (judge advocates), chaplains, and health care providers. The Services differ in their reliance on the various sources as related to their missions. For example, the Navy, which provides the Marine Corps with medical and chaplain services, relies to a greater extent than do the other Services on direct commissions. Figures 3-1 and 3-2 show the distribution of FY 1997 active duty officer accessions within each Service and for total DoD by the major commissioning sources.

The particular commissioning criteria depend somewhat upon the pathway chosen. Physical and medical (and dental) standards are very stringent and one must pass a physical fitness test of coordination, strength, endurance, speed, and agility, in addition to submitting to an extensive medical examination and review of records.¹⁸

Would-be officers are screened for moral character; thus, a record of court convictions, juvenile delinquency, arrests, and drug use is, with very few exceptions, disqualifying. Single persons with custody of minor dependents are not eligible for commissioning,¹⁹ and to attend one of the Service Academies one must be single. Different occupational specialties may require more stringent screening, including variations in age criteria.

The Services are academically selective even among college students and graduates. Although there are exceptions, emphasis is on engineering, science (particularly chemistry and physics), mathematics, and computer science, particularly at the Service Academies and within four-year ROTC scholarship programs. Other majors encouraged include economics, business, foreign language, and political science. Majors in English or the humanities are not out of the question;²⁰ however, the technical majors are most highly sought after.

Given the technical nature of officer educational preparation and the military's monetary investment, particularly in the cases of the Academies and ROTC-scholarship programs, an applicant's scholastic potential is assessed by nationally normed tests—the Scholastic Assessment Test (SAT)²¹ or the American College Test (ACT)—and academic records from high school and any previous college work. The Service Academies screen transcripts for evidence of completion of four years of study in mathematics and English, as well as the sciences and a foreign language. ROTC

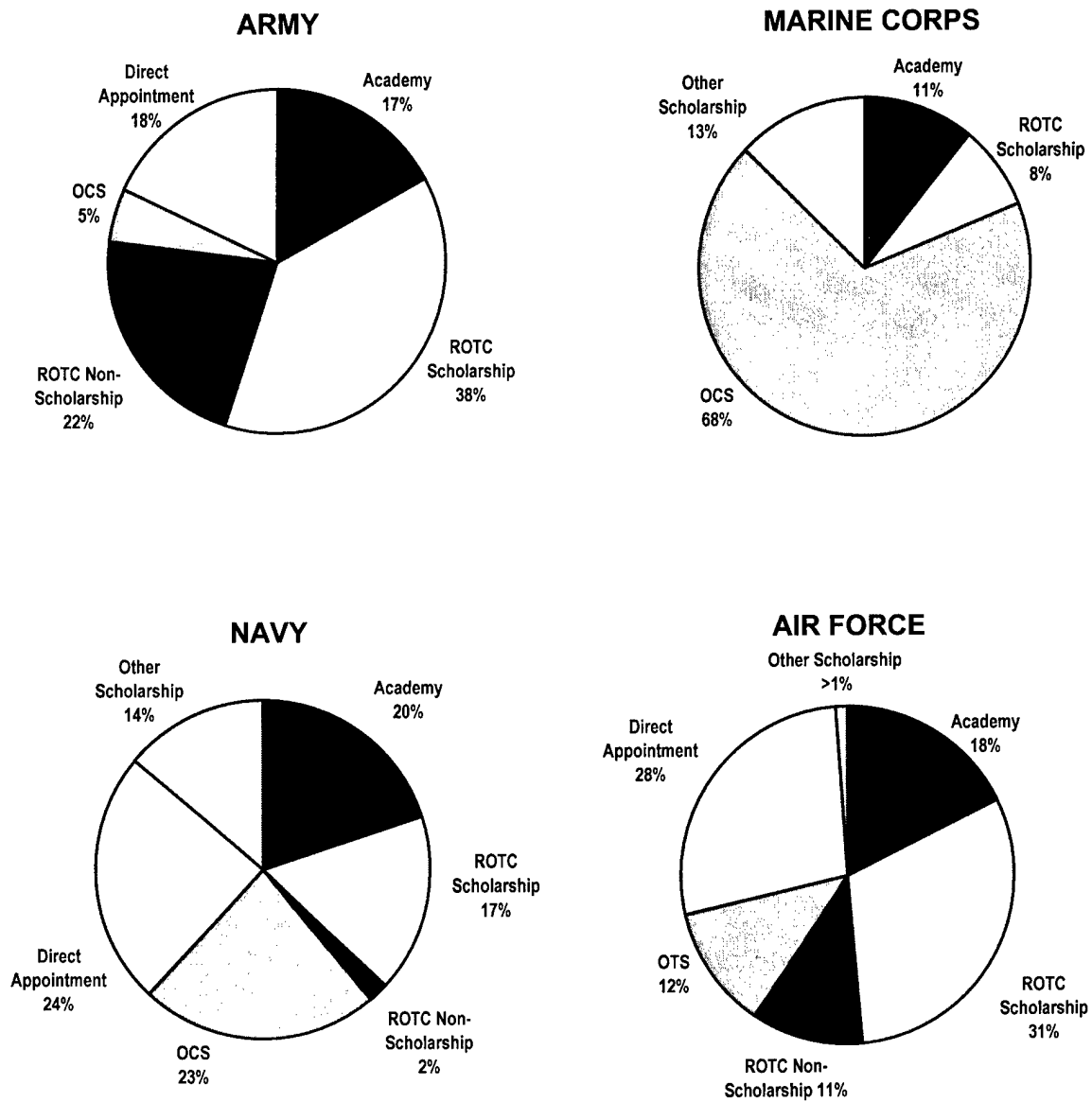
¹⁸ These standards include requirements regarding minimum and maximum height and weight, vision standards (color vision, acuity - correctable to 20/20, etc.), hearing, disqualifying conditions such as diabetes, severe allergies, epilepsy, eczema, peptic ulcer, and certain dental conditions.

¹⁹ Some services may make an exception under certain circumstances. The Air Force, for example, may grant a waiver for single persons with custody of minor dependents to be accessed as an officer on active duty.

²⁰ Although a large portion of Air Force ROTC scholarships are in the technical and science fields, the Air Force has recently restructured its programs to provide more in-college scholarships in other less technical degree fields.

²¹ In 1994 the SAT was renamed from the Scholastic Aptitude Test.

Figure 3-1. Active Component Officer Accessions by Source of Commission and Service: FY 1997

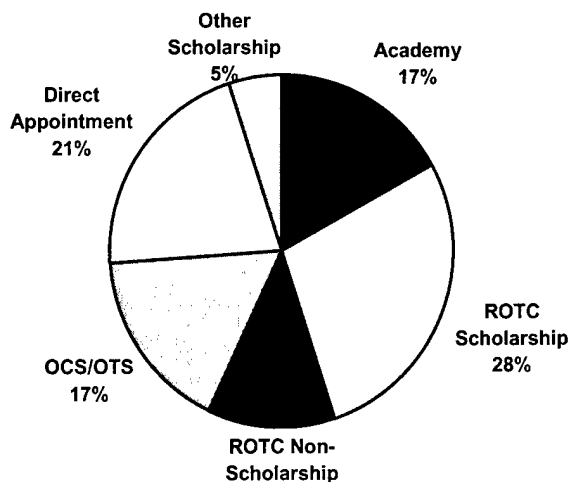


Source: Defense Manpower Data Center

*Includes health professions, judge advocates general, and chaplains.

**The Unknown and Other categories included in Tables 3.3 and 3.4 do not appear in Figures 3-1 and 3-2.

Figure 3-2. Total DoD Active Component Accessions by Source of Commission: FY 1997



Source: Defense Manpower Data Center

*Includes health professions, judge advocates general, and chaplains.

programs can also boast of high SAT scorers. The minimum SAT (verbal and math combined) score for the Air Force, Navy, Marine Corps, and Army ROTC scholarship program enrollees are 1100, 1050, 1100, and 920, respectively. Waivers of this minimum are possible, but relatively low scores may have continuing repercussions for subsequent promotion in the military.²²

The Service Academies are quite selective in their admission policies, as shown by the following high school rank and SAT score statistics for the West Point class of 1997:

	Men	Women
Applicants:	11,476	1,829
Admitted:	1,075 (9%)	137 (7%)

High School Rank in Class		SAT Scores	Verbal	Math
First 5th	82%	700-800	3%	29%
Second 5th	13%	600-699	27%	52%
Third 5th	4%	500-599	51%	19%
Fourth 5th	1%	400-499	19%	0%
Bottom 5th	0%	300-399	0%	0%

²² Mark J. Eitelberg, Janice H. Laurence, and Dianne C. Brown, "Becoming Brass: Issues in the Testing, Recruiting, and Selection of American Military Officers," in Bernard R. Gifford and Linda C. Wing, eds., *Test Policy in Defense* (Boston: Kluwer Academic Publishers, 1992), pp. 79-219.

The average SAT score (math and verbal combined) was 1231 for the class of 1997. For the Naval and Air Force Academies, the average scores were 1237 and 1232, respectively. In contrast, the average SAT scores for all students nationwide was about 900.

In addition to class standing and aptitude test results, other entry hurdles include submission of an essay regarding goals and objectives, letters of recommendation, and evaluations from teachers and counselors.²³ Furthermore, participation in athletics and extracurricular school and community activities, particularly as a leader, is important. A formal interview is conducted to further assess communication skills, confidence, maturity, leadership potential, and overall attitude.

Officer Accession Goals

There are no DoD-wide goals for commissioning minorities and female officers.²⁴ Although the Services are conscious of the need to recruit women into the officer corps concomitant with their overall personnel requirements, only the Marine Corps currently states a steady-state numerical goal for female accessions. In FY1997, with a goal of 120 female officer accessions, women accounted for 7.2 percent of all officer accessions. The FY1998 and FY1999 goals are 130; in FY1998, women made up 7.6 percent of total officer accessions. As for accessing minorities, the Military Departments take separate approaches in establishing their objectives.

The Navy, Marine Corps, and Air Force minority goals are established at the Department level. The Navy has established specific numerical goals—12 percent Black, 12 percent Hispanic, and 5 percent Asian-Pacific Islander/American Indian and Alaskan Natives (combined). Although the Air Force does not have official numerical goals, it seeks to align its mix in accord with that of the recent college graduate population.

The Marine Corps also aligns its officer accession goals to the relevant applicant pools currently enrolled in colleges and universities. For planning purposes under the Marine Corps' "Campaign Plan to Maintain a Quality Officer Corps," the FY1999 goals are 9.7 percent for Blacks, 5.5 percent for Hispanics, and 6.2 percent for other race/ethnic groups.

²³ For the Academies, a formal nomination from a member of Congress is required. Each member of Congress may have up to five nominees in attendance at an Academy at any one time. In addition to Congressional nominations, there may be up to 100 persons (generally the children of career officers or enlisted personnel) who receive a Presidential appointment, 5 who receive a Vice Presidential appointment, and assorted other appointments for qualified candidates with special circumstances such as children of Medal of Honor Awardees or children of deceased veterans.

²⁴ It is important to distinguish between a "goal" and "quota." A goal is a numerical objective, fixed realistically in terms of the number of opportunities (accessions, promotions, etc.) and the population of potential candidates available. Although the Military Departments are expected to do all that is practical to achieve a goal, there is no mandate to sacrifice quality to do it. A quota, on the other hand, is a mandatory number or percentage that must be achieved without regard to the size or quality of the candidate pool. Under a system of goals, the Departments are not required to commission, assign, or promote anyone who is not qualified; under a system of quotas, preference could be given to the less qualified over the more qualified simply to meet a numerical requirement. DoD accession programs are not based on a quota system.

Unlike the other Services, Army objectives are not centrally determined. Targets for minorities at the U.S. Military Academy are set by its superintendent, and ROTC goals are determined by the Commander, ROTC Cadet Command. The OCS program is expected to generate a mix of racial/ethnic groups that matches Army officer accession patterns in general (which are largely determined by its recruiting results at ROTC).

Until recently the minority officer accession goals were keyed to Department of Education (DoED) estimates of college graduation rates.²⁵ The rationale was that, notwithstanding other requirements regarding citizenship, age, physical fitness, and lack of criminal conviction, the critical commissioning requirement was a college degree.²⁶ While it may seem logical to use the DoED "benchmark"—about 8 percent—as a basis for accession goals, it ought not be viewed as a ceiling. The Army routinely accessed minorities at a rate of 9 to 12 percent of each commissioning year group, demonstrating that it is possible to achieve higher goals.

In November 1993, the Secretary of the Navy set the "12-12-5" goal for officer accessions based on Census Bureau projections of the population mix in the year 2005. The intent is for the Navy to migrate toward those objectives, reaching them by the year 2000. The Navy had determined that earlier goals based on DoED benchmarks artificially restricted the target demographics of the officer corps by merely reflecting the population of persons who had been able to graduate from college. Earlier goals consequently excluded potential candidates who could not pursue (or complete) a traditional four-year degree and, as a result, these goals ignored the possible influence of scholarships, enlisted commissioning programs, early acceptance, and other recruiting initiatives aimed at expanding the pool of qualified officer candidates.

In its first year under these goals, the Navy was able to streamline its minority scholarship process; and, through aggressive recruiting, it was able to triple the number of Blacks applying for a scholarship under the ROTC program. These changes helped the Navy to increase the proportion of scholarships awarded to minorities from 11 percent to 19 percent, without making changes in the standards for selection. During the summer of 1995, the Navy also announced an aggressive campaign to increase Black and Hispanic representation at the Naval Academy to 12 percent each from its previous level of 7.5 percent, and to raise the total minority enrollment at the Academy (including Blacks, Hispanics, and others) from 18 to 30 percent by the year 2004.

²⁵ It should be noted that although popular, the "college graduate" benchmark is not the only way to gauge gender and racial participation. The "appropriate" population representation benchmark is open to debate. In lieu of the proportion of college graduates, others recommend age-based minority representation levels without regard to college graduation as goals. For a more complete discussion of representation, see Mark J. Eitelberg, *Military Representation: The Theoretical and Practical Implications of Population Representation in the American Armed Forces*, Doctoral Dissertation, New York University, October 1979 (*Dissertation Abstracts International*, Volume 40, No.11, May 1980, p.6000-A. Order No. 8010342), and Mark J. Eitelberg and Martin Binkin, "Military Service in American Society," in A.J. Goodpaster, L.H. Elliott, and J.A. Hovey, Jr., eds, *Toward a Consensus on Military Service* (Elmsford, NY: Pergamon Press, 1982).

²⁶ See Edwin Dorn, "Race and the American Military: Past and Present," in N.F. Dreisziger, ed., *Ethnic Armies: Polytechnic Armed Forces from the Time of the Hapsbergs to the Age of the Superpowers* (Waterloo, Canada: Wilfred Laurier University Press, 1990), p. 101.

Success in Recruiting Women and Minorities

Among the almost 16,000 officers newly commissioned in FY 1997, over 19 percent were women and approximately 20 percent were racial/ethnic minorities (Table 3-1). Among the total active duty officer corps, women and minorities stood at 14 and 15 percent, respectively. The Air Force accessed the largest percentage of women (25 percent), whereas the Army accessed the highest proportion of minorities (21 percent), particularly Blacks.

Table 3-1. Percent of Active Duty Component Officer Accessions and Officer Corps by Service, Race/Ethnicity, and Gender: FY 1997

Active Component Officer Accessions	Race/Ethnicity				Gender	
	White	Black	Hispanic	Other	Male	Female
Army	78.9	9.9	4.0	7.2	80.5	19.5
Navy	81.1	7.5	5.6	5.8	82.7	17.3
Marine Corps	81.0	8.9	5.9	4.3	92.7	7.3
Air Force	81.7	7.5	2.1	9.0	75.3	24.7
Total DoD	80.5	8.5	4.0	7.0	80.6	19.4
Civilian College Graduates*	79.1	7.2	5.3	8.4	47.4	52.6
Active Component Officer Corps						
Army	80.7	11.0	3.4	4.9	85.8	14.2
Navy	86.4	5.8	3.8	4.8	85.8	14.2
Marine Corps	87.1	5.9	4.1	2.7	95.8	4.2
Air Force	87.4	5.9	2.2	4.4	83.8	16.2
Total DoD	85.0	7.5	3.1	4.8	85.9	14.2
Civilian College Graduates*	80.3	8.3	4.6	6.8	51.9	48.1

Source: Defense Manpower Data Center; Civilian data from Bureau of Labor Statistics' Current Population Survey File.

* Comparison group for accessions includes 21-35 year-old college graduates in the non-institutional civilian population, October 1995-September 1996. Comparison group for active component officer corps includes college graduates in the civilian workforce (21-49 years old), September, 1996.

Rows may not add to 100% due to rounding.

Also included in Table 3-1 is the representation benchmark—the percentage of civilian college graduates within the appropriate age ranges (i.e., 21-35 year olds for officer accessions and 21-49 year olds for the officer corps). Against this backdrop, racial/ethnic minority representation in total in the officer corps is quite comparable (i.e., 19.5 percent among accessions and 20.9 percent among civilians). However, the Services have been successful in recruiting Blacks in a greater proportion than in the college-educated population. Blacks accounted for 7.2 percent of younger college graduates, but made up 8.5 percent of all officer accessions. Among the officer corps, Blacks accounted for a slightly lower proportion of officers (7.5 percent) than of college graduates (8.3 percent). A decade earlier, Blacks made up 6.4 percent of college graduates and 6.5 percent of active duty officers. Hispanics are underrepresented among officer accessions and in the officer corps relative to civilian college graduates; in the Air Force the underrepresentation is more pronounced.

Given that the military is a nontraditional career choice for women, their lower rates of participation as officers are not surprising. However, their greater representation among officer accessions relative to their representation in the total active component officer corps suggests that women are continuing to make strides in gaining admittance to the commissioned ranks, especially in the Air Force as restrictions on the occupations in which they may serve have been significantly reduced.

Note that minority representation among new officers varies somewhat by Service. In FY1997, Blacks accounted for 10 percent of new Army officers; they represented about 9 percent of new officers in the Marine Corps, and 8 percent in the Navy and Air Force. Approximately 4 out of every 10 Black officers commissioned since 1973 have entered the Army, and the Army's share of Black officer accessions is closer to 50 percent in more recent years. This point is important to consider when viewing data on Black officers combined for all Armed Services, since many of the trends for all DoD are influenced by experiences in the Army.

The proportion of minorities and women entering the officer corps has risen substantially since the inception of the All-Volunteer Force in 1973 (Table 3-2). For example, Blacks stood at less than 3 percent in 1973 and rose to 8.5 percent by 1997. Even during the force downsizing years between the late 1980s and 1997, the representation of minorities and women did not suffer (although Hispanics were the only group to experience an increase in the *number* of individuals commissioned). The proportions of Blacks and women among new officers has remained at about 8 and 18 percent, respectively, during the years of the largest force cuts in the 1990s.

Table 3-2. Number and Percent of Newly Commissioned Black, Hispanic, and Female Officers: Selected Fiscal Years 1973-1997

Fiscal Year	Black		Hispanic		Female	
	Number	Percent	Number	Percent	Number	Percent
1973	895	2.8	473	0.2	2,490	7.9
1975	914	3.9	161	0.2	2,513	10.7
1980	1,443	5.8	277	1.1	4,119	16.5
1985	1,818	7.1	439	1.7	3,930	15.4
1990	1,557	8.1	537	2.8	3,411	17.7
1995	1,246	7.9	618	3.9	2,944	18.5
1997	1,330	8.5	634	4.0	3,043	19.4

Source: Defense Manpower Data Center.

Since 1973, three-quarters of all women commissioned in the Armed Services have entered either the Army (36 percent) or the Air Force (39 percent). In 1997, women accounted for almost 20 percent of newly commissioned officers in the Army, 17 percent in the Navy, 7 percent in the Marine Corps, and 25 percent in the Air Force (Table 3-1). Because the Marine Corps is the smallest Service and has the largest proportion of occupational fields closed to women (due to ground combat restrictions) of any Service,

and because its medical and chaplain services are provided by the Navy, its accessions of women officers have been similarly small. Between 1973 and 1997, 1,737 women were commissioned in the Marine Corps; these women represent about 2 percent of all women commissioned as military officers (94,296) over that 25-year period.

Another way to view trends in the recruitment of women and minority officers is by source of commission. Table 3-3 shows the percentage distribution of newly commissioned officers by their commissioning source and racial/ethnic group for the years 1990 and 1997. One way to interpret these data is to compare the proportion of officers in the row marked "All Sources"—which indicates the level of representation for a group among all newly commissioned officers—with each group's proportion of officers by the various sources of commissions. In this way, one can see that Blacks have been a smaller proportion of officers commissioned through the Service Academies (8.5 percent of new officers versus 5.6 percent of Academy graduates in 1997); and a larger proportion of officers commissioned from ROTC nonscholarship programs. Hispanic representation levels among Academy graduates and ROTC scholarship officers have increased, but they too remain overrepresented among ROTC nonscholarship officers.

Table 3-3. Percentage Distribution of Newly Commissioned Officers by Commissioning Source and Race/Ethnicity: FYs 1990 and 1997

1990						
Source of Commission	White	Black	Hispanic	Other	Percent	Number
Academy	89.1	4.9	1.5	4.5	100	2,934
ROTC-Scholarship	87.7	6.3	2.2	3.7	100	3,970
ROTC-Non-Scholarship	78.5	13.0	3.7	4.8	100	3,861
OCS/OTS	85.3	6.6	3.9	4.2	100	2,950
Direct Appointment	83.4	8.0	2.7	5.8	100	4,815
Other	89.8	5.1	3.6	1.5	100	137
Unknown	81.3	10.0	1.5	7.3	100	411
All Sources (Number)	84.5 (16,119)	8.0 (1,523)	2.8 (534)	4.7 (902)	100	(19,078)
1997						
Academy	83.1	5.6	4.8	6.6	100	2,703
ROTC-Scholarship	80.1	8.4	3.2	8.3	100	4,389
ROTC-Non-Scholarship	73.3	14.2	4.9	7.7	100	1,843
OCS/OTS	79.8	8.9	6.4	4.9	100	2,707
Direct Appointment	81.6	7.4	2.3	8.7	100	3,252
Other	71.1	8.6	3.6	16.7	100	742
Unknown	46.3	3.7	1.2	48.8	100	82
All Sources (Number)	79.4 (12,483)	8.5 (1,330)	4.0 (634)	8.1 (1,271)	100	(15,718)

Source: Defense Manpower Data Center.
Rows may not add to 100% due to rounding.

In addition, Hispanics are more likely to have been commissioned through the OCS/OTS route. The commissioning trend for other minorities is less clear, though they have also been underrepresented among Academy officers.

Table 3-4 shows similar data by commissioning source for women in fiscal years 1990 and 1997. Women, like their minority counterparts, are a smaller proportion of Academy graduates (12.3 percent for Academy graduates versus 19.4 percent for all sources). However, women were also underrepresented for all other commissioning sources except direct appointment. While the majority of those commissioned by direct appointment were men (66.6 percent), about 36 percent of women commissioned in 1997 were directly appointed in contrast to 17 percent of men. The much higher proportions of women here relates to the fact that they are disproportionately concentrated in the military's medical professions, including nurses, who typically receive direct commissions. As seen in Chapter 4 (in the discussion of officer assignments), women currently account for approximately 35 percent of all officers in health care occupations.

Table 3-4. Percentage Distribution of Newly Commissioned Officers by Commissioning Source and Gender: FYs 1990 and 1997

1990				
Source of Commission	Male	Female	Percent	Number
Academy	92.3	7.7	100	2,934
ROTC-Scholarship	84.4	15.6	100	3,970
ROTC-Non-Scholarship	87.2	12.8	100	3,861
OCS/OTS	92.3	7.7	100	2,950
Direct Appointment	65.2	34.8	100	4,815
Other	91.2	8.8	100	137
Unknown	74.5	25.5	100	411
All Sources (Number)	82.4 (15,716)	17.6 (3,362)	100	(19,078)
1997				
Academy	87.7	12.3	100	2,703
ROTC-Scholarship	78.4	21.6	100	4,389
ROTC-Non-Scholarship	83.2	16.8	100	1,843
OCS/OTS	89.3	10.7	100	2,707
Direct Appointment	66.6	33.4	100	3,252
Other	91.6	8.4	100	742
Unknown	87.8	12.2	100	82
All Sources (Number)	80.6 (12,675)	19.4 (3,043)	100	(15,718)

Source: Defense Manpower Data Center.
Rows may not add to 100% due to rounding.

Although it appears that these commissioning source differences have diminished over time, the data indicate that Blacks, Hispanics, and women are still less likely than Whites and other minorities and men, respectively, to have gained entry via either an Academy or ROTC scholarship. This may place them at a relative disadvantage in terms of assignment and promotion.²⁷ Earning a commission from one of the Service Academies, for example, may yield some benefit.²⁸ One is that, until recently, Academy graduates received a Regular as opposed to a Reserve component commission.²⁹ Another is the greater probability of receiving a preferred initial assignment, and, hence, higher and faster promotion potential. No doubt these apparent preferences are influenced by qualifications and thus may not merely reflect biases in favor of Academy graduates. That is, graduates may come out ahead, on average, of their peers from other sources because of factors like the selectivity of the Academies; four-year-in-residence exposure to a military environment; special academic, physical, and other (e.g., leadership) preparation; and longer active-duty service obligation periods.

Access to the Officer Corps

In the civilian labor market lexicon, military officers are white collar workers—primarily managers and professionals. Thus, access to the military's professional and technical ranks is based on a highly selective process that winnows the pool of qualified youth, especially among minorities. Blacks comprise 7 percent and Hispanics 4.5 percent of managers and professionals within the civilian labor force.³⁰ The proportions of minorities within the officer corps—the military's professional and technical ranks—are similar to civilian occupational patterns. Differences between majority and minority groups' eligibility patterns undoubtedly are influenced by education, social, economic, criminal record, and other environmental (including health status) disparities.³¹ Education is perhaps the most salient factor for gaining access to the officer corps.

²⁷ Eitelberg, Laurence, and Brown, pp. 79-219.

²⁸ For a critical discussion of the costs, benefits, and other issues relevant to the Service Academies, see Robert L. Goldich, *The DoD Service Academies: Issues for Congress*, 97-217F (Washington, DC: Congressional Research Service, February 6, 1997).

²⁹ Throughout FY1996, all Academy graduates were commissioned as Regular officers whereas ROTC and other officers competed for the remaining Regular commissions or accepted a Reserve commission. In FY1997, all newly commissioned officers initially will receive a Reserve commission, and subsequently compete for Regular appointment.

³⁰ See U.S. Department of Labor, Bureau of Labor Statistics, *Handbook of Labor Statistics*, 1995.

³¹ For example, data on 16 to 24 year olds from the National Health and Nutrition Examination Survey, 1976-1980 conducted by the National Center for Health Statistics within the Department of Health and Human Services show that whereas 83 percent of White men met the medical standards for enlistment, only 79 percent of Blacks and 76 percent of Hispanics did so. The qualification rates for White, Black, and Hispanic women were 62 percent, 46 percent, and 48 percent, respectively. See John W. Overbey, II, Phillip E. Winter, and Michael T. Laurence, *The Medical Fitness of American Youth for Military Service* (Arlington, VA: Defense Manpower Data Center, 1987). Furthermore, Blacks are disproportionately represented among persons who have an arrest record, particularly for robbery. For example, in 1990, Whites comprised 28 percent of all persons arrested for robbery, whereas the corresponding figure for Blacks was 61 percent. Clearly there are numerous confounds between criminal or illegal behavior and race, socioeconomic status, residence (urban/rural), other community characteristics (such as amount of police presence), and prejudice. See Albert J. Reiss, Jr., and Jeffrey A. Roth, eds., *Understanding and Preventing Violence* (Washington, DC: National Academy Press, 1993).

Educational Trends. Given the professional status of the officer corps, educational experiences and outcomes are particularly important limiting factors to consider when examining the level of participation by women and minorities. There are differences between the genders and particularly among racial/ethnic groups regarding the learning environment, curriculum, course of study, achievement or proficiency level, and college enrollment/completion rate.

Educational differences in achievement appear well before the senior year in high school. Minority children are less likely to attend preschool, and academic gaps between the races appear even at the elementary school levels. No doubt, the fact that minority youth are more likely to experience disorderly learning environments factors into achievement and attainment differences.³² For example, Table 3-5 shows that, in contrast to 12th grade White students, Blacks, Hispanics, and Asians were more likely to feel unsafe at school, to state that other students often disrupt class, and to believe that such disruptions interfered with their learning.

Table 3-5. Percent of 12th Graders in 1992 Who Strongly Agree or Agree With Selected Statements About School Climate by Race/Ethnicity

Climate Statement	White	Black	Hispanic	Asian	American Indian
I don't feel safe at this school	8.6	16.1	14.7	15.8	13.0
Disruptions by other students interfere with my learning	30.8	38.1	39.8	41.4	40.5

Source: U.S. Department of Education, National Center for Education Statistics, "National Educational Longitudinal Study of 1988," as adapted from *Digest of Education Statistics*, 1997.

High school dropout rates also remain a problem for minorities (Table 3-6). However, since 1980, the percentage of dropouts (ages 16-24) has declined for both genders and for the various racial/ethnic groups; moreover, the gap between Whites and Blacks has narrowed considerably. Unfortunately, Blacks and particularly Hispanics are still more likely than Whites to leave school without a high school diploma. This reduces the pool of minorities who go on to college and thus are eligible to join the officer corps. These data also show that Black men have higher dropout rates than their female counterparts.

In addition to dropout rates, differences between Whites and minorities in academic proficiency further reduce the pool of minority officer candidates. Table 3-7 shows reading, mathematics, and science proficiency scores by gender and race/ethnicity. These scores are derived from the National Assessment of Educational Progress (NAEP)

³² It should be noted that although Asian American students were more likely to report a more negative school climate than Whites, they do not show lower aptitude or achievement levels. The strong emphasis on educational achievement within the Asian cultures and family environment is thought to contribute to the academic success of this group. See *Intelligence: Knowns and Unknowns*, Report of a Task Force established by the Board of Scientific Affairs of the American Psychological Association (Washington, DC: August 7, 1995); Stanley Sue and Sumie Okazaki, "Asian-American Educational Achievements," *American Psychologist*, 45(8), August, 1990, pp. 913-920.

or the so-called “nation’s report card.”³³ The data show persistent gaps in achievement levels between Whites and their Black and Hispanic counterparts, particularly in science proficiency. Although the differential has narrowed somewhat, Black scores remain significantly below those of Whites. Hispanic scores are in between. Young women outscored men in terms of reading proficiency, but were slightly behind young men with regard to math and, more so, science.

Table 3-6. Percent of High School Dropouts Among Persons 16 to 24 Years Old by Gender and Race/Ethnicity: Selected Years 1980-1996

Year	Total				Male				Female			
	All Races	White	Black	Hispanic	All Races	White	Black	Hispanic	All Races	White	Black	Hispanic
1980	14.1	11.4	19.1	35.2	15.1	12.3	20.8	37.2	13.1	10.5	17.7	33.2
1985	12.6	10.4	15.2	27.6	13.4	11.1	16.1	29.9	11.8	9.8	14.3	25.2
1990	12.1	9.0	13.2	32.4	12.3	9.3	11.9	34.3	11.8	8.7	14.4	30.3
1995	12.0	8.6	12.1	30.0	12.2	9.0	11.1	30.6	11.7	8.2	12.9	30.1
1996	11.1	7.3	13.0	29.4	11.4	7.3	13.5	30.3	10.9	7.3	12.5	28.3

Source: U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 1997.

Note: Because of changes in data collection procedures, data in 1995 and 1996 may not be strictly comparable with figures for earlier years.

Not only do test scores for high school seniors indicate that racial and ethnic minorities are less prepared for entry into officer commissioning programs, but there are coursework disparities. With the exception of Asian/Pacific American high school seniors, who far exceed Whites in the percentage taking higher level mathematics (e.g., calculus) and physics, minorities are less likely to take math, computer science, and the natural sciences.³⁴ These courses are important in gaining admittance to selective colleges and are scrutinized when an applicant is applying for an officer commissioning program. The disparities between Whites and non-Asian minorities in high school preparation mean many minorities are academically less prepared for college.

In addition to evaluating high school transcripts, colleges typically factor standardized tests into the selection process with more selective schools requiring higher test scores and other distinguishing characteristics to gain admittance. Here, too, minorities (and in some cases women) are at a disadvantage. Whites comprised 69 percent of Scholastic Assessment Test (SAT) takers in 1995. Blacks comprised 11 percent, Hispanics 8 percent, Asians 8 percent, and others 4 percent of these seniors.

³³ Rather than merely describing performance relative to others, they represent typical task performance levels and are thus criterion-referenced, rather than merely indicative of higher or lower standing relative to the norming group. NAEP scores range between 0 and 500—and various levels (e.g., 150, 250, 325, 375) are anchored to typical tasks. For example, 300-level performance signifies more complex reasoning ability than 200-level performance. In reading, this might mean the ability to integrate ideas and express relevant opinions in contrast to understanding less complicated passages.

³⁴ Pertinent data are available from The College Board, *National Report on College Bound Seniors* (New York, 1995).

With the exception of average SAT-math scores for Asian Americans, minority group members scored consistently lower than Whites (see Table 3-8).

Table 3-7. Average Proficiency Scores at Age 17 by Race/Ethnicity and Gender: Selected Years, 1977-1996

Subject and Year	White	Black	Hispanic	Male	Female
Reading					
1980	293	243	261	282	289
1984	295	264	268	284	294
1988	295	274	271	286	294
1992	297	261	271	284	296
1994	296	266	263	282	295
1996	294	265	265	280	294
Mathematics					
1978	306	268	276	304	297
1982	304	272	277	302	297
1986	308	279	283	305	299
1990	310	289	284	306	303
1992	312	286	292	309	304
1994	312	286	291	309	304
1996	313	286	292	310	305
Science					
1977	298	240	262	297	282
1982	293	235	249	292	275
1986	298	253	259	295	282
1990	301	253	262	296	285
1992	304	256	270	299	289
1994	306	257	261	300	289
1996	307	260	269	300	292

Source: U.S. Department of Education, National Center for Education Statistics, National Assessment of Education Progress, *Digest of Educational Statistics*, 1997.

As was shown for NAEP scores, there are notable disparities among race/ethnic groups. Of all minority groups, Blacks had the lowest scores on both the verbal and the mathematical portions of the test—scoring about 100 points below their White counterparts; Hispanics scored about 70 points lower than Whites. SAT scores are a significant factor for admission to college because there is a solid link between these scores and predicted academic success at the college level.

Table 3-8. Scholastic Assessment Test (SAT) Average Scores of High School Seniors by Race/Ethnicity, Gender, and School Year

Verbal Score										
Year	All Students	White	Black	Mexican	Puerto Rican	Asian	Am. Indian	Other	Male	Female
1979-80	424	442	330	372	350	396	390	394	428	420
1984-85	431	449	346	382	368	404	392	391	437	425
1989-90	424	442	352	380	359	410	388	410	429	419
1994-95	428	448	356	376	372	418	403	432	429	426
Mathematical Score										
1979-80	466	482	360	413	394	509	426	449	491	443
1984-85	475	490	376	426	409	518	428	448	499	452
1989-90	476	491	385	429	405	528	437	467	499	455
1994-95	482	498	388	426	411	538	447	486	503	463

Source: U.S. Department of Education, National Center for Education Statistics, *Digest of Educational Statistics*, 1997 and special tabulations provided by the College Board.

The SAT and high school record (HSR) are valid and useful predictors of college performance.³⁵ Certainly, cognitive test scores are not the only predictors of college and job performance; however, they are reliable, efficient, and effective assessment devices with a vast and supportive research base. Other predictors of performance, such as motivation, are more difficult to measure reliably, but are also factors in college success. Minorities are also less likely to go to college than their White peers. And once in college, they are less likely to graduate,³⁶ thus winnowing further the numbers of minorities who meet the qualifications for commissioning. Nationally, in 1996, 23 percent of Whites ages 20-29 had at least a Bachelor's degree (see Table 3-9). This compares with only 10 percent of Blacks and 7 percent of Hispanics. While the percentage of female college graduates ages 20-29 exceeded that for males (20 percent compared to 18 percent), they were underrepresented in the academic programs of special interest to the military. About one in six of those earning engineering degrees and one in four with computer science degrees were women. Similarly, with the exception of Asian Americans, minorities and women are less likely to pursue these high military-demand

³⁵ The reported average validity coefficient for high school record and SAT scores combined with freshman grade point average (GPA) is quite respectable at .55—accounting for about 30 percent of the variation in GPA. For a more detailed discussion of this issue, see "Predictive Validity of the ATP Tests," Chapter VIII in Thomas F. Donlon, *The College Technical Handbook for the Scholastic Aptitude Test and Achievement Tests* (New York: College Entrance and Examination Board, 1984); Alexandra K. Wigdor and Wendell R. Garner, eds., *Ability Testing: Uses, Consequences, and Controversies* (Washington, DC: National Academy Press, 1982); Thomas R. Caretta, "Group Differences on U.S. Air Force Pilot Selection Tests," *Journal of Military Psychology*, in press; and General Accounting Office Reports NSIAD-94-95, NSIAD-94-54, and NSIAD-93-244.

³⁶ See U.S. Department of Education, *The Educational Progress of Black Students*, NCES 95-765 (Washington, DC: Office of Educational Research and Improvement, 1995).

Table 3-9. Percent of 20-29 Year Olds Awarded at Least a Bachelor's Degree by Race/Ethnicity and Gender: 1996

Gender and Racial/Ethnic Group	Percent 20-29 Year Olds with at Least a Bachelor's Degree
White, Non-Hispanic	23.1
Black, Non-Hispanic	9.5
Hispanic	6.9
Men	18.4
Women	20.3

Source: U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics 1997*, NCES 98-015 (Washington, DC: U.S. Government Printing Office, 1997, p. 18).

majors. Although minority representation among computer science majors is competitive, Blacks and Hispanics are overrepresented in the liberal arts and the social sciences—fields less in demand by the military (Table 3-10).

Table 3-10. Percentage Distribution of Bachelor's Degrees for Selected Majors by Race/Ethnicity and Gender: 1994-1995

Major	Total *	White	Black	Hispanic	Asian	American Indian	Males	Females
All Majors	100	81.4	7.8	4.8	5.4	.6	44.9	55.1
Business	100 (19.8)	79.6 (19.3)	9.2 (23.3)	4.9 (19.8)	5.9 (21.8)	.5 (15.1)	51.8 (22.8)	48.2 (17.3)
Computer/ Info Science	100 (2.0)	72.1 (1.7)	11.6 (2.9)	4.9 (2.0)	11.0 (4.0)	.5 (1.7)	71.4 (3.1)	28.6 (1.0)
Education	100 (9.4)	88.3 (10.2)	6.3 (7.6)	3.3 (6.3)	1.3 (2.3)	.8 (12.8)	24.1 (5.0)	75.9 (12.9)
Engineering	100 (5.1)	77.8 (4.9)	5.1 (3.3)	4.7 (5.0)	12.1 (11.5)	.4 (3.4)	82.4 (9.4)	17.6 (1.6)
Liberal Arts	100 (2.9)	78.8 (4.7)	9.6 (5.5)	7.4 (7.2)	3.3 (2.9)	.9 (7.3)	39.3 (4.0)	60.7 (5.5)
Math	100 (1.2)	80.4 (1.2)	7.7 (1.2)	4.0 (1.0)	7.5 (1.6)	.4 (.9)	52.8 (1.4)	47.2 (1.0)
Physical Sciences	100 (1.6)	83.5 (1.7)	5.7 (1.2)	2.7 (.9)	7.5 (2.3)	.6 (1.5)	65.2 (2.4)	34.8 (1.0)

Table 3-10. Continued

Major	Total *	White	Black	Hispanic	Asian	American Indian	Males	Females
Psychology	100 (6.3)	80.5 (6.3)	8.3 (6.7)	5.8 (7.7)	4.8 (5.6)	.6 (6.3)	27.2 (3.8)	72.8 (8.4)
Public Administration	100 (1.6)	73.5 (1.5)	16.4 (3.5)	6.4 (2.2)	2.5 (.8)	1.1 3.1	21.2 (.8)	78.8 (2.3)
Social Science & History	100 (11.1)	79.9 (10.9)	8.5 (12.1)	5.6 (12.9)	5.3 (11.0)	.6 (12.1)	53.1 (13.1)	46.9 (9.5)

Source: Department of Education, *Digest of Education Statistics*, 1997.

Note: Numbers in parentheses represent column percents and do not sum to 100 percent given that only selected majors are shown.

*Excludes non-resident aliens.

These educational differences in learning environments and proficiency gaps, as well as variations in college enrollment, course of study, and graduation rates, serve to limit the numbers of racial and ethnic minorities who meet the criteria for entry into the officer corps.

argeted Programs

Because of obstacles such as those noted above, the Services target recruitment and administer compensatory programs in an attempt to broaden the pool of minority candidates, raise their representation levels, and enable all recruits to begin their military life on a more "level playing field."

Through targeted programs, the Military Services strive to *elevate* the officer candidates rather than *lower* their entrance standards.³⁷ ROTC hosted at Historically Black Colleges and Universities (HBCU) and the Service Academies' special preparatory schools are the primary programs that benefit minorities by successfully preparing them for officer commissioning.³⁸ These major programs for officers are discussed below as are some notable complementary initiatives.

Historically Black Colleges and Universities. There are 117 historically Black colleges and universities in the United States, the majority of which are four-year institutions. Well known is the fact that these institutions are a source of Black leaders;

³⁷ The military has had two experiences with lowering standards for the enlisted force. One was Project 100,000 where large number of enlistees with the lowest mental aptitude scores (who were disproportionately minority) were drafted beginning in 1966. The other case occurred in the late 1970s. Because of a miscalibration (misnorming) of scores from the Armed Services Vocational Aptitude Battery, more than 300,000 lower aptitude men were inadvertently accepted into the military. In both cases, the experience was costly in terms of lower soldier performance and an increase in the number and severity of disciplinary problems. See Janice H. Laurence and Peter F. Ramsberger, *Low Aptitude Men in the Military: Who Profits, Who Pays?* (New York: Praeger, 1991).

³⁸ Remedial programs are also available to the enlisted force. In terms of minority participation, the Army's is the largest. One example is the Functional Academic Skills Training (FAST) program—a free on-post course of instruction in mathematics, reading, and writing—designed to increase the chances of promotion. The Army enrolls about 6,000 soldiers at any given time; 60 percent of these are Black.

less well documented is their value as a major source of Blacks in the military's officer corps, especially for the Army.

As Table 3-11 shows, 706 (or 10 percent) of the total 7,067 ROTC commissions were awarded to Blacks in 1996. Of these 706 commissions, 43 percent went to students at the 27 HBCUs at host universities with Army, Navy/Marine Corps, and/or Air Force ROTC programs.³⁹ The Army has, by far, the largest HBCU program. Operating in 20 schools, the Army accounted for over two-thirds of the total Black HBCU enrollment in ROTC programs (3,057), with 220 Black graduates of HBCUs accounting for nearly 75 percent of Black commissioned officers from all HBCUs in 1996. Army HBCUs account for about 46 percent of all Army Black officers commissioned through ROTC. Although the actual numbers are smaller, HBCUs also play an important role in the production of Navy, Marine Corps, and Air Force Black officers—accounting for 53, 42, and 30 percent, respectively, of their Services' ROTC commissions to Blacks in school year (SY) 1995-96.

Table 3-11. ROTC Enrollment (School Year 1996) and Production (School Year 1995) by HBCU and Race

Race	Enrollment (SY 1996-97)			Production (SY 1995-96)		
	Total	HBCU	Percent	Total	HBCU	Percent
Army						
All Races	33,705	2,459	7	4,256	254	6
Black	5,155	2,194	43	479	220	46
Navy						
All Races	4,831	414	9	852	43	5
Black	558	303	54	62	33	53
Marine Corps						
All Races	820	40	5	200	6	3
Black	51	20	39	12	5	42
Air Force						
All Races	15,182	722	5	1,759	67	4
Black	1,594	540	34	153	46	30
All Services						
All Races	54,538	3,635	7	7,067	370	5
Black	7,358	3,057	42	706	304	43

Source: Military Services, special tabulations.

³⁹ This understates the number of colleges and universities that participate in the program. Actually more than 50 schools have students enrolled in an HBCU ROTC program. Many schools do not have the students necessary or the resources available to offer a program of their own; consequently, they cross-enroll their students at a host school.

ROTC is also a rich commissioning source for women in the Army. The 770 women commissioned in FY1996 from Army ROTC accounted for about 18 percent of total Army ROTC commissions (Table 3-12). ROTC is a particularly important avenue for Black women, who made up 32 percent of all Black ROTC commissions in FY 1996. But ROTC units in HBCUs are an even more important source of commissions for Black women. HBCUs account for 43 percent of Black male officers, but they account for 52 percent of all Black women officers commissioned in FY1996. Still, Black women accounted for less than 4 percent of all ROTC commissions.

Table 3-12. Total and HBCU Officer Commissions from ROTC in the Army by Gender and Race: FY 1996

Race and Gender	Total ROTC Commissions	HBCU ROTC Commissions
Total	4,256	254
Black	479	220
Men	3,489	170
Black	324	140
Women	770	84
Black	155	80

Source: U.S. Army Cadet Command, Ft. Monroe, VA, special tabulations.

Scholarships represent an important incentive for increasing the number of minority students in ROTC programs. Scholarships are particularly important for Black and Hispanic students since they are more likely, on average, to come from households with lower incomes than their White counterparts. A typical 4-year scholarship can be as high as \$16,000 a year, plus \$450 for books and a monthly benefit of \$150.

A special scholarship program, called "Green-to-Gold," provides a two- or three-year scholarship to enlisted soldiers with at least two years' active duty. Four-year scholarship recipients must attend an HBCU. In FY1995, there were 318 Green-to-Gold scholarship recipients enrolled, 98 (or 31 percent) of whom attended HBCUs.

The Army also provides additional academic assistance in writing, reading, and mathematics to ROTC cadets through the Enhanced Skill Training (EST) program. This program was implemented using teachers hired under contract by the U.S. Army Cadet Command, and was budgeted at \$3.4 million in 1995. For students who completed the EST program, arithmetic and algebra scores increased 21 and 11 percentile points, respectively, and their reading scores rose by 20 points. Writing skills also improved. Ninety-nine percent passed the Officer Basic Course—the screening program for all new second lieutenants after commissioning—compared to about 70 percent before the EST was established.

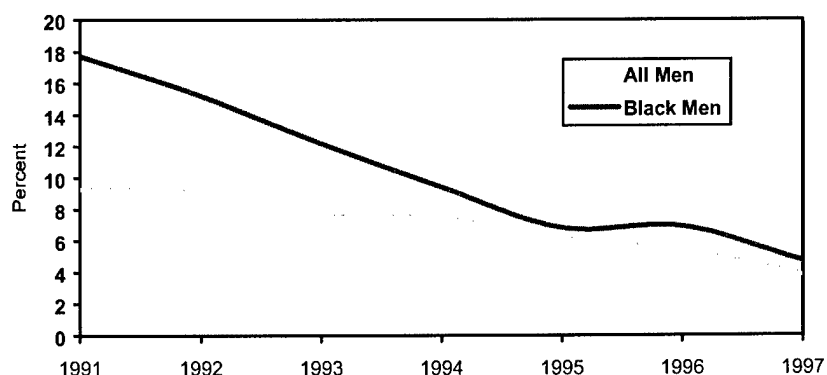
Moskos and Butler argue that "The lesson is clear; to produce Black leaders, in this case military officers, one must increase the pool from which they come, namely,

ROTC units." They also argue that there must be a forthright acknowledgment that educational deficiencies exist for many Black students, and that these academic weaknesses involve basic subjects—reading, written and oral communication, and mathematics—important skills needed not only for a military commission, but also for advancement through the officer corps.⁴⁰

The Services are also interested in attracting Hispanic students to ROTC. Although the Army, Navy, and Air Force have units at Hispanic-serving institutions, the Army has the largest program. As of 1998, nearly 1,900 Hispanics were enrolled in Army ROTC, with nearly 50 percent enrolled in Hispanic-serving units.⁴¹

Interest in ROTC Enrollment. Although the interest (or likelihood) of Blacks in enrolling in ROTC has been generally higher than that of Whites across all colleges, it has fallen considerably since 1991 (see Figure 3-3). The drop has been greater among Black men than among their White counterparts—the former falling from 18 percent in 1991 to 5 percent in 1997. The corresponding drop among all men was from 9 to 4 percent over this period.

Figure 3-3. Percent of Men Likely to Enroll in ROTC: 1991-1997



Source: Data from a representative sample survey of approximately 6,000 young men, 16-19 years old who are either in college or planning to attend college, and who respond that they "definitely will" or "are interested in" enroll(ing) in ROTC. Survey conducted by Teenage Research Unlimited under contract to U.S. Army Cadet Command, Ft. Monroe, VA.

This is a significant downtrend as it signals a declining pool from which the Services pick a substantial portion of their officers. Of course, the number of officers accessed is lower today than in the 1980s—due to the force drawdown—but there is concern that the pool may become so small that the quality content could diminish. The challenge will not be

⁴⁰ See Charles C. Moskos and John Sibley Butler, *All We Can Be: Black Leadership and Racial Integration the Army Way* (New York: Basic Books, 1996), p. 84, 85. Indeed, Moskos and Butler argue that "...the most plausible explanation for the shortfall [in promotions of Black captains to majors] is that a disproportionate number of Black junior officers have not acquired the writing and communication skills necessary for promotion to staff jobs" (pp. 67-68).

⁴¹ Hispanic-serving institutions are so classified if they have an Hispanic student enrollment of 25 percent or more.

attracting the requisite *number* of officer candidates so much as attracting the highest *quality* of those candidates. Data show that youth and their parents are less aware of ROTC and the benefits of military service.⁴² Significant cuts in advertising had contributed to perceptions that the military is no longer “hiring.” This is a particularly ominous sign for the Services as they continue to compete for quality high school seniors within the pool of college bound youth.

Academy Preparatory Schools. The Service Academies—the Military Academy, the Naval Academy, and the Air Force Academy—remain the most prestigious source of officer commissions. About 20 percent of all active duty officers are Service Academy graduates (about the same proportion as accessions—Figure 3-2 above), yet over one third of all general and flag officers are Academy graduates. Table 3-13 shows total enrollment of the Service Academies for school year 1997-1998. Minorities and women made up 18 and 15 percent, respectively, of school enrollment, and a relatively large proportion of that number is the product of military preparatory schools—the Army’s Military Academy Preparatory School (MAPS), the Naval Academy Preparatory School (NAPS), and the Air Force Academy Preparatory School (AFAPS). Over 800 students enroll in these schools for a 10-month course of study (which is essentially an extra year of high school) to address academic deficiencies.

Although the missions of the preparatory schools differ somewhat, their primary purpose is to prepare selected applicants—or enlarge the pool of qualified applicants (in most cases minorities and prior service students)—to qualify for admittance to the Service Academies.

Table 3-13. Student Enrollment at Service Academies: School Year 1997-1998

Race, Ethnicity & Gender	Military Academy		Naval Academy		Air Force Academy		All Academies	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	4,087	100	3,857	100	4,043	100	11,987	100
White	3,306	81	3,135	81	3,329	82	9,770	82
Black	271	7	245	6	203	5	719	6
Hispanic	187	4	274	7	295	7	756	6
Other	323	8	203	5	216	5	741	6
Men	3,508	86	3,264	85	3,380	83	10,152	85
Women	579	14	593	15	663	16	1,835	15

Source: Military Services, special tabulations as of September 1995.
Columns may not add to 100% due to rounding.

⁴² Unpublished data. U.S. Army Cadet Command, Ft. Monroe, Va.

Table 3-14 shows total enrollment of the preparatory schools in those years for which data are readily available. Black students comprise relatively large proportions of the total enrollment at all schools. Across all schools, Blacks, Hispanics, and women accounted for 22, 11, and 13 percent, respectively, of the average total enrollment of 817. Prior enlisted personnel also account for substantial proportions for the Army and Navy preparatory schools. All preparatory school students, however, enter with some academic deficiency which is reflected in their SAT/ACT scores, high school GPA, and/or class rank.

Table 3-14. Student Enrollment at Service Academy Preparatory Schools: Selected School Years

Category	MAPS ^a (N=298)	NAPS ^a (N=292)	AFAPS ^b (N=227)
	Percentage of Total	Percentage of Total	Percentage of Total
Black	18	24	24
Hispanic	7	14	12
Women	12	14	12
Prior Enlisted	49	26	12

Source: *Service Academy Preparatory Schools Project*, 1993.

Note: Some groups are not mutually exclusive.

^a Applies to total number enrolled in school year 1992-1993, and average percent enrolled during school years 1990-1992.

^b Applies to school year 1991-1992.

Average SAT scores for entering MAPS, NAPS, and AFAPS students are shown in Table 3-15. Most students are able to raise their scores during the year and qualify for admittance to their respective Academy. In recent years, the average White student entering MAPS, for example, had a SAT score of 1030; Blacks entered with an average of between 920 and 970. By the end of the year, the average SAT score had risen approximately 100 points for Whites and 120 points for Blacks. Of those preparatory school students who are not accepted in an Academy, many (particularly MAPS graduates) attend ROTC programs on university campuses, frequently with scholarships.⁴³

An important issue to address is how successful the preparatory schools are in enlarging the pool of qualified minority and women applicants from which the Services can draw their commissioned officers.⁴⁴ A brief examination of student educational outcomes is presented below.⁴⁵

⁴³ Moskos and Butler, pp. 86-7.

⁴⁴ Although the Services target the enlisted force (and this may be an effective way of increasing the minority content of the officer corps), relatively few attain the rank above O-4 since enlisted service counts toward retirement. This does not serve to increase minority representation in the senior officer grades.

⁴⁵ For a more detailed evaluation, see *Service Academy Preparatory Schools Project: Final Report*, The American Council on Education (The Center for Adult Learning and Educational Credentials), Washington, DC, June 15, 1993.

Table 3-15. Average SAT Scores of Selected Cadet/Midshipman Candidate Groups at Service Academy Preparatory Schools

Category	MAPS ^a		NAPS ^b		AFAP ^c	
	Verbal	Math	Verbal	Math	Verbal	Math
All	469	558	520	600	492	548
Black	467	535	476	578	420	500
Hispanic	476	578	512	602	507	543
Women	470	553	530	587	445	490
Prior Enlisted	486	589	556	633	460	530

Source: *Service Academy Preparatory Schools Project*, p. 100.

Note: Some groups are not mutually exclusive.

^aData averaged over Fall 1991 and Fall 1992.

^bData reflect midshipman candidates selected by USNA only. Averaged over Fall 1990, Fall 1991, and Fall 1992.

^cData averaged over Fall 1990 and Fall 1991.

Military Academy Preparatory School. Despite a high attrition rate of 40 percent from MAPS, the vast majority (typically 96-99 percent) of the 60 percent who do graduate attend the Military Academy. Because the Academy has set goals for minorities, women, Regular Army, and athletes who enter each year, the preparatory school has established an enrollment and an acceptable retention rate to match the available Academy slots. MAPS graduates account for 16 percent of Military Academy enrollment. MAPS students admitted to the Academy in recent years accounted for about 25-40 percent of all Black students, 20-30 percent of Hispanics, and 10-15 percent of women.

The Cumulative Academic Quality Point Average and the Military Development Index Cumulative—significant factors that are used to determine the order-of-merit list—are somewhat lower for MAPS graduates than for so-called direct-admit cadets. In addition, graduation rates for MAPS students are typically below the Academy average as shown in Table 3-16.

Among Black MAPS graduates who entered West Point, however, the story is quite different. For the class of 1995, 94 percent graduated with their class; compare this with the 79 percent figure for all cadets. Black MAPS graduates have a higher Academy graduation rate than White direct-admit students who enter directly from a civilian high school. Black cadets who have not attended MAPS, however, lag behind their White peers. Within the class of 1995, only 77 percent of Black direct-admits graduated.⁴⁶

Black students select National Security and Public Affairs as a field of study at a higher rate and the Applied Sciences and Engineering fields at a lower rate than directly admitted students. This may reflect lower achievement in the math and science areas,⁴⁷

⁴⁶ Moskos and Butler, p. 87.

⁴⁷ *Service Academy Preparatory Schools Project*, p. 62.

and could be a factor that might adversely affect promotion opportunities later in their careers.

Table 3-16. Service Academy Graduation Rates

Military Academy			
	Class of 1990	Class of 1991	Class of 1992
Prep	63%	64%	69%
Nonprep	70%	70%	71%
Naval Academy *			
	Class of 1990	Class of 1991	Class of 1992
Prep	76%	72%	73%
Nonprep	73%	72%	76%
Air Force Academy			
	Five-year Average		
Prep	74%		
Nonprep	73%		

Source: *Service Academy Preparatory Schools Project*, p. 111.

*Coast Guard Academy preparatory students graduate at a significantly lower rate (22-36 percent over the past four years) than direct-entry students (approximately 64 percent). There are approximately 40 students in this program.

A final outcome measure of MAPS success is the retention rate of MAPS graduates on active duty as commissioned officers. Data show that the percentage of MAPS graduates who remain on active duty is consistently higher than the overall average during the first 7-17 years of service. There is no difference in retention after the 17-year point.

Naval Academy Preparatory School. Like MAPS, nearly all graduates are admitted to the Naval Academy.⁴⁸ But with a lower attrition rate (30 percent), the NAPS students account for a somewhat larger proportion (18 percent) of Naval Academy midshipmen. About one-third of the minority midshipmen came from NAPS and they tend to perform academically at a level below that of direct-admit students. However, over the last three years, their graduation rates are comparable to their direct-admit counterparts.

Most NAPS alumni graduate from the Academy in four years, but (like their MAPS counterparts) they are unlikely to enter the more demanding fields such as nuclear

⁴⁸ The Coast Guard also uses NAPS to strengthen its applicant pool for minorities and women. Over the last five years, 35 to 40 midshipmen—nearly all minorities—were enrolled in NAPS. Of the 16 Blacks who entered the Coast Guard Academy in the class of 1996, 9 were from NAPS. At the Coast Guard Academy, however, NAPS students' graduation rates (at 47-52 percent) have been lower than those for direct-admit students (64 percent) over the past four years. This is probably due, in large part, to the more rigid technical engineering curriculum all students must take.

power programs. NAPS graduates who attrit from the Naval Academy are more likely to leave for academic reasons than direct-admit students.

Air Force Academy Preparatory School. Unlike MAPS and NAPS, the attrition rate at AFAPS is significantly lower—approximately 18 percent. However, the acceptance rate of AFAPS graduates to the Air Force Academy is also lower. Minorities in AFAPS attrit at significantly higher rates than women (see Table 3-17).

Table 3-17. Air Force Academy Preparatory School Attrition Rates by Category of Students

Category	SY 1990-91	SY 1991-92
Minorities	15%	18%
Women	7%	5%
Prior Enlisted	13%	4%

Source: *Service Academy Preparatory Schools Project*, 1993, p. 27.

Over the last several years, AFAPS has provided between 30 and 50 percent of minority students and 30 percent of women cadets enrolled in the Academy. AFAPS graduates consistently have lower GPAs than direct-admit students at the Academy, and they, too, are less likely to select the engineering and more technical major fields. Although AFAPS students who enter the Academy graduate at a rate similar to that of direct-admit students, the combination of attrition from the preparatory school and from the Academy means that only about one-half of the students who enter AFAPS will eventually be commissioned. This is in sharp contrast to 72 percent of the direct-admit students. AFAPS and direct-admit Air Force Academy graduates from 1966-1990 were retained as active duty commissioned officers at about the same rate—65 and 64 percent, respectively.

Summary of Preparatory Schools. Despite the considerable attrition. From the preparatory schools, they are successful in producing qualified enrollees to the Service Academies. Attrition could be reduced by not accepting high-risk applicants, of course, but that would defeat one of the purposes of the school—to make room for students who provide diversity. As long as the Service Academies exist, access of underrepresented minorities and women to these Academies with a fair chance for success is the overriding consideration for supporting the Services' preparatory schools.⁴⁹

Junior ROTC. Although not a direct commissioning source, the Junior ROTC program can serve to increase the pool of both majority and minority high-quality officer candidates. The program is for high school students who take classes (as well as extracurricular activities) as an elective, emphasizing civic values, responsibility, citizenship, discipline, and leadership. Over 360,000 students in about 2,500 high schools nationwide participated in JROTC in the 1995-96 school year (Table 3-18).

⁴⁹ *Service Academy Preparatory Schools Project*, p. 113.

Table 3-18. Percent Enrolled in Junior Reserve Officers Training Corps by Service and Demographic Group: SY 1995-1996

Category	All Services	Army	Navy	Air Force	Marine Corps
Total Number	364,006	204,821	52,774	82,294	24,117
Percent	100.0	100.0	100.0	100.0	100.0
White	a	44.6	51.9	51.7	a
Black	a	40.1	30.5	32.2	a
Other	a	15.3	17.6	16.1	a
Men	58.0	57.3	57.5	58.8	62.4
Women	42.0	42.7	42.5	41.2	37.6
Percent to ROTC	11	12	10	12	3

Source: Office of the Assistant Secretary of Defense for Force Management Policy (Accession Policy) and special Service tabulations.

^a Because data were not available by race/ethnicity from the Marine Corps, individual items do not add to total.

Over 40 percent of total enrollees are women and over 50 percent are minorities (with Black students accounting for 37 percent of all participants). Since 1992, enrollment has increased nearly 65 percent, due in large part to an expansion program initiated by then Chairman of the Joint Chiefs of Staff, General Colin Powell, and supported by Congress. This expansion was targeted toward inner-city schools to address the special needs of the larger "at-risk" populations. The Services typically fund about two-thirds of the \$500 per student cost of the program; for the disadvantaged schools in the latest expansion, the Services have invested nearly \$7 million covering practically all the costs in these schools which cannot easily afford their one-third share of a JROTC unit.

JROTC was never intended to be, nor is it today, a recruiting program. Typically only 3 to 4 percent of the Armed Forces' enlistments are JROTC graduates; JROTC graduates are more likely to go on to college and join the (senior) ROTC program. In FY1996, 11 percent of JROTC graduates across the Services entered an ROTC program in college. Indeed, Army data show that 44 percent of ROTC scholarship recipients in HBCUs were JROTC participants; the comparable statistic in non-HBCUs is 16 percent.

In addition, certain consideration is given JROTC graduates by the three service academies. Under Title 10, USC, Sections 4342 (Military Academy), 6954 (Naval Academy), and 9342 (Air Force Academy), each Secretary of a Military Department is permitted to nominate to his/her respective academy 20 persons who are honor graduates of schools designated by the Department. Under this provision, the Services together allow cadets from JROTC units to compete for the 60 academy nominations.

JROTC remains a very successful and popular program in the nation's high schools. Currently over 300 schools have applied for units, but DoD funds are unavailable. Evidence indicates that students, parents, and school officials—

particularly in predominantly minority schools—want the values and characteristics that a JROTC program embodies and instills within students.⁵⁰

The Department of Defense—in partnership with the Department of Education—has also developed the JROTC Career Academy Program which establishes small career academies within the public school system to address academic and other needs of “at-risk” (primarily minority) high school youth. The curriculum is composed of leadership and citizenship training to help develop students’ confidence, discipline, and responsibility; academic instruction to ensure that students graduate from high school; and vocational/technical training to provide career-oriented skills to improve student's employment opportunities. All students are required to enroll in JROTC.

Each Academy enrolls about 200 students across three or four high school grades. Each Academy has a separate occupational focus, a low student/teacher ratio, a dedicated teaching staff, and an integrated academic/vocational curriculum. The teaching staff is specially trained and comprises both retired military and civilian personnel. Military instructors also provide extensive mentoring. Local business partners support the Academy with funding as well as providing other assistance such as mentoring and career counseling, curriculum development, student internships, and job opportunities to graduates of the Academy.

Over 30 Career Academies are now operating in urban areas nationwide and each Service participates. Data show that JROTC Career Academy students have higher attendance, lower dropout rates, and higher grade-point averages than non-Academy students in these schools. Academy students also have better attitudes about school and themselves, and show greater confidence and personal responsibility.⁵¹

Other Programs. A number of Service-specific programs are already working to expand the pool from which to select minority officer candidates. In 1995, the Navy implemented—for both the Navy and the Marine Corps—the Immediate Scholarship Decision (ISD) and Express Scholarship Decision (ESD) programs that help ROTC recruiters compete with universities and corporations for highly qualified high school students. In the ISD process, recruiters are permitted to award four-year Naval (N) ROTC scholarships “on the spot” if the student has the targeted SAT (1280) and class standing (top 20 percent) established for the program. Although not specifically targeted to minorities and female students, 16 and 19 percent of the 145 ISD scholarships were awarded to minorities and women, respectively, in school year 1995-96—its first year. These percentages have risen to 29 and 30 percent, respectively, for school year 1996-97. The ESD allows recruiters to offer scholarships to other high quality applicants within 10 days to two weeks; 20 percent of the 726 ESD scholarships were awarded to minorities in 1995-96, while 22 percent of the 1,215 scholarships were awarded to minorities in 1996-97. Women received 33 percent of these awards.

⁵⁰ Abby E. Robyn and Lawrence M. Hanser, *JROTC Career Academies Guidebook* (Santa Monica, CA: RAND, 1995).

⁵¹ Laurence M. Hanser, Marc Elliot, and Curtis Gilroy, *Career Academies: Evidence of Positive Student Outcomes* (Santa Monica, CA: RAND, forthcoming).

The Navy also has operated its Broadened Opportunity for Officer Selection and Training (BOOST) program since 1968 to provide academic skills enhancement to enlisted Navy and Marine Corps personnel and civilians who have officer potential, but are not yet prepared to qualify for NROTC. About 300 students (70 percent Black and Hispanic) are enrolled in school year 1996-97 for a year-long program stressing mathematics, science, and English. Also, since 1994 the Navy has run the Seaman to Admiral program to commission 50 officers each year from the enlisted warfare community. Selections for this program are made by a board based solely on the Navy performance of applicants. College tuition is paid for by the Navy and sailors are attached to Naval ROTC units while attending classes.

All Services have programs designed specifically to offer opportunities for officer commissions to qualified enlisted members. These programs can produce officers who are already dedicated and committed to military service and culture. In addition to the BOOST program for the Navy described above, the Marine Corps Enlisted Commissioning Education Program (MECEP), the Enlisted Commissioning Program, and the Meritorious Commissioning Program are important parts of the Corps' minority officer accession plan. The Army's Green-to-Gold program discussed earlier is also a successful initiative.

The Air Force has instituted the Gold Bar program whereby newly commissioned minority ROTC graduates are assigned on a full-time basis to target underrepresented markets to recruit minorities for ROTC. The number assigned has risen from 16 officers in 1992 to 67 officers in 1996; during that time the percentage of minorities enrolled in ROTC has risen from 6.6 to 14.7 percent. A Gold Bar recruiter is placed at every Air Force HBCU.

Summary

The Department of Defense has undertaken a concerted effort to increase the pool of minority applicants for officer commissioning. Specific initiatives exist in all Services targeted toward those groups so that more will qualify for the various commissioning and pre-commissioning programs. Preparation for the officer corps, more so than any other profession, must begin early—well before the officer accessioning point. The later and less intensive the intervention, the less likely it is to have a sizable impact on entry into the officer ranks and a successful career.⁵²

In contrast to minorities, women are less hampered by differences in precommissioning educational experiences and outcomes. However, their measured math and science standardized test scores lag behind men and they are less likely to pursue technical majors in college. Lower propensity, assignment restrictions, and the debate over the role of women in the military are greater limiting factors for women in the officer corps.

⁵² See J. Norman Baldwin, "The Promotion Board of the United States Army: Glass Ceilings in the Officer Corps," *Public Administration Review*, 56 (2), March/April 1996, pp. 199-206.

Chapter

Occupational Assignment

Job assignments can be an important factor in determining how far and how fast an individual will advance in the officer corps. In each Service there are career-enhancing assignments and, more generally, career fields that are associated with a higher probability of success. This chapter examines the issue of why women and minorities are underrepresented in these fields and the extent to which this may adversely affect their career advancement. Procedures for selection, training, and promotion in the field of fixed-wing aviation are examined in detail to illustrate the obstacles that lead to low participation in this field by women and minorities.

Job Assignment and Occupational Specialty

Occupational assignments are important because the path to general and flag officer status traditionally has been through the tactical operations field—which includes almost all combat-related skills. Although only about one-third of the officer jobs are in this occupational field, almost two-thirds of the promotions to general and flag officer rank come from this group. Clearly, the Services consider this experience essential to effective performance in a high proportion of general and flag officer billets.

Procedures for making initial job assignments and occupational specialty designations differ by Service, and in some cases by source of commission.⁵³ Assignment to specialties such as aviation and nuclear propulsion require proficiency in special aptitudes, in addition to other qualifications. In the Army, Navy, and Air Force, officers are awarded specialties on the basis of college major, class standing, and needs of the Service as well as the desires of the individuals. Cadets and midshipmen at the Service Academies are given job preference based on their class ranking, or place within the order of merit list (OML). They are encouraged to pursue assignments in combat-related fields. ROTC graduates undergo similar but separate selection processes based on OML ranking and their stated preferences. OCS/OTS candidates are usually selected into these commissioning programs based on the occupational needs of the Services and the qualifications of the prospective candidates. The Marine Corps designates an occupational specialty after officers are commissioned and while they are attending The Basic School (TBS), where they receive training regardless of their source of commissioning.

How do these selection procedures affect the pattern of job assignments by race and gender in the occupations from which general and flag officers are drawn? Table 4-1 provides a snapshot of the racial/ethnic and gender distributions of officers within the major occupational areas in 1980 and 1997. In both years, minorities are relatively concentrated in the non-combat

⁵³ See Douglas B. Rosenthal and Patricia Colot, *Initial Job Assignments of Military Officers* (Alexandria, VA: Human Resources Research Organization, June 1989).

related skills such as Engineering/Maintenance, Administration, and Supply/Procurement— as well as Health Care, a predominantly direct commissioning field. Women are even more concentrated in direct commissioning fields, especially Health Care. These patterns tend to persist over time. Between 1980 and 1997 minority officer representation rose from 9 to 14 percent and female representation rose from 8 to 14 percent in the overall force. However, those gains were not spread in equal proportions across occupations. For example, Blacks increased from 3 to 5 percent in the largest occupational field—Tactical Operations—but in Administration and Supply/Procurement their proportions grew from 7 to 13 and 7 to 14 percent, respectively. Similarly, women grew from 1 to 3 percent of the Tactical Operations positions, while in Engineering, Scientists, and Health Care, their share increased between 4 and 8 percentage points.

Table 4-1. Percentage Distribution of Active Duty Officers Within Occupational Area by Race/Ethnicity and Gender: FYs 1980 and 1997

Occupational Area	White	Black	Hispanic	Other/ Unknown	Male	Female	Total Percent	Total Number
1980								
General Officer/Executives*	97	1	0	1	98	2	100	5,386
Tactical Operations	94	3	1	2	99	1	100	80,845
Intelligence	93	3	1	2	89	11	100	9,037
Engineering/Maintenance	92	5	1	2	95	5	100	38,776
Scientist and Professionals	92	4	1	3	94	6	100	14,519
Health Care	84	5	2	9	68	31	100	30,418
Administration	89	7	1	2	87	13	100	30,263
Supply, Procurement, and Allied	90	7	1	2	94	6	100	11,972
Non-Occupational**	89	6	1	3	93	7	100	39,248
All Occupations	91	5	1	3	92	8	100	260,464
1997								
General Officer/Executives*	95	4	1	1	98	2	100	2,014
Tactical Operations	89	5	3	3	97	3	100	81,515
Intelligence	85	7	4	4	84	16	100	10,562
Engineering/Maintenance	83	9	3	5	88	12	100	24,880
Scientist and Professionals	87	7	3	4	86	14	100	10,299
Health Care	83	8	3	6	65	35	100	39,751
Administration	78	14	4	4	70	30	100	12,532
Supply, Procurement, and Allied	79	13	4	4	86	14	100	18,427
Non-Occupational**	84	6	5	5	92	8	100	12,362
All Occupations	86	7	3	4	86	14	100	212,362

Source: Defense Manpower Data Center.

* This category includes officers other than general and flag officers.

**This category includes patients, students, and other.

These differences are more pronounced, however, when the occupations *with* direct commissions are eliminated. Table 4-2 shows the race/ethnic/gender groups in those occupational areas that do not contain direct commissions. One of the most striking differences is in the Tactical Operations field. In 1997, Whites in this field made up 56 percent of all White officers; the comparable figures for Blacks, Hispanics and other minorities were 37, 50, and 47 percent, respectively. By contrast, women in Tactical Operations jobs made up only 18 percent of all women officers. Among minority groups, Blacks are the most underrepresented in Tactical

Operations and this pattern has persisted over time. Although this pattern is visible in the specialties the Army groups under Combat Arms, this report will focus on an element of Tactical Operations, that of fixed-wing aviation in the Navy and Air Force. This occupational specialty is among the largest, yet most selective and prestigious.

Table 4-2. Percentage Distribution of Active Duty Officers in Selected Occupations by Race/Ethnicity and Gender: FYs 1980 and 1997

Occupational Area	White	Black	Hispanic	Other	Male	Female
1980						
General Officer/Executives*	3.2	0.9	1.2	1.3	3.1	1.2
Tactical Operations	46.6	33.6	42.2	40.8	47.7	9.5
Intelligence	5.2	3.9	4.8	5.9	4.8	11.6
Engineering	21.8	24.3	24.0	25.7	22.0	22.8
Administration	16.6	27.2	20.7	19.4	15.7	46.4
Supply/Procurement	6.6	10.0	7.1	6.8	6.7	8.5
Totals	100	100	100	100	100	100
1997						
General Officer/Executives*	1.5	0.7	0.6	0.3	1.5	0.3
Tactical Operations	56.4	37.0	50.1	46.5	58.0	18.0
Intelligence	7.0	6.3	8.8	8.1	6.5	12.7
Engineering/Maintenance	16.1	20.6	15.8	20.9	16.0	22.7
Administration	7.7	14.8	9.8	9.9	6.4	27.5
Supply/Procurement	11.4	20.6	14.9	14.3	11.6	18.8
Totals	100	100	100	100	100	100

Source: Defense Manpower Data Center

* This category includes officers other than general and flag officers.

Minorities and Women in Fixed Wing Aviation

Aviation is one of the most demanding occupations in the military, requiring exceptional physical and mental skills and discipline. The training and experience provided by the Services are difficult to obtain in the civilian sector. Thus, becoming an aviator can be very rewarding, in terms of both military career progression and civilian opportunities. For example, in the Air Force, over one-half of the general officers during the past 20 years have come from the pilot population. And, upon leaving the military after completing their service obligations, many pilots are able to continue their profession with a civilian airline. Achieving adequate minority representation in high skill occupations such as aviation is an important indicator of success for equal opportunity programs in the military.

The Services classify flying positions (aviators) into two categories: pilots and navigators (Air Force) or flight officers (Navy and Marine Corps). Table 4-3 shows the distributions for these categories of active duty fixed wing aviators by race/ethnicity for fiscal year 1997. The 1,950 minority aviators in FY 1997 represented 6.9 percent of all aviators in the Navy, Marine Corps, and Air Force combined. For flight officers and navigators, nearly 10 percent were minorities. But among pilots, the minority percentage is considerably lower, at 5.6 percent; Blacks and Hispanics account for less than 2 percent each, and less than 1 percent is accounted for by each of the other minority groups. These percentages compare with the officer minority

representation in the total active force in 1997 as follows: all minorities (15.3 percent), Blacks (7.5 percent), Hispanics (3.1 percent), and other minorities (4.7 percent).

Table 4-3. Racial/Ethnic and Gender Representation in Fixed Wing Aviation: FY 1997

Category	White	Black	Hispanic	American Indian\Alaskan Native	Asian\Pacific Islander	Other	Male	Female	Total
Pilots									
Fighter/Bomber	9,113	112	120	32	66	82	9,462	63	9,525
Other Pilots	9,058	232	299	42	96	107	9,417	317	9,734
Total Pilots	18,171	344	319	74	162	189	18,879	380	19,259
Percent of Total	94.4	1.8	1.7	0.4	0.8	0.9	98.0	2.0	
Navigators and Flight Officers									
Total Navigators & Flight Officers	8,208	291	278	45	195	53	8,897	191	9,070
Percent of Total	90.5	3.2	3.1	0.5	2.1	0.6	98.1	1.9	
Total Aviation	26,379	635	597	119	357	242	27,759	570	28,329
Percent of Total	93.2	2.3	2.1	0.4	1.3	0.8	98.0	2.0	

Source: Defense Manpower Data Center

But in recent years, the situation appears to be improving. The entry of women into aviation is a relatively recent phenomenon in the military, and only in 1993 were *combat* aviation billets open to women.⁵⁴ Over the 1990-1997 period, the number of women pilots in military aviation rose slightly—from 364 to 380 (Table 4-4). Their percentage of all pilots increased from 1.5 to 2.0 percent, due both to their increasing number and to a reduction in the male pilot population (by 16 percent).

Table 4-4 also shows that the trends for minority pilots have been favorable during the past seven years, increasing by 6.8 percent to 1,088. The total number of minority pilots has increased in the Air Force, Navy and, more significantly, the Marine Corps. Minority pilots now account for 5.6 percent of all pilots, up from 4.2 percent in 1990. In percentage terms, each Service has improved its minority representation either because it has increased its numbers or because of the reduction in the number of the White majority group.

In summary, both minority and women pilots in the Services either increased in number or held steady; practically all the decrease in pilots during the past seven years—almost 5,000—

⁵⁴ The restrictions barring women from assignments in aircraft engaged in combat missions were removed in 1993. See Office of the Secretary of Defense memorandum dated April 23, 1993, "Policy on the Assignment of Women in the Armed Forces." However, there remain a limited number of aircraft billets in units assigned to Special Operation Forces which are not open to women due to their co-location with ground combat units.

has been accounted for by White men. Although the numbers and percentages of minority and women pilots are still small, they are growing steadily.⁵⁵

Table 4-4. Number and Percent of Fixed Wing Pilots by Service, Minority Status, and Gender: FYs 1990 and 1997

Service		Minority		Female		Male		Total	
		1990	1997	1990	1997	1990	1997	1990	1997
Air Force	Number	701	719	277	281	15,870	13,056	16,147	13,337
	Percent	4.3	5.4	1.7	2.1	98.3	97.9		
Navy	Number	272	288	87	98	6,476	4,417	6,563	4,515
	Percent	4.1	6.4	1.3	2.2	98.7	97.8		
Marine Corps	Number	46	81	0	1	1,445	1,406	1,445	1,407
	Percent	3.2	5.8	0	*	100	100		
Total	Number	1,019	1,088	364	380	23,791	18,879	24,155	19,259
	Percent	4.2	5.6	1.5	2.0	98.5	98.0		

Source: Defense Manpower Data Center

* Less than 0.1%.

The remainder of this section discusses the education and training process for becoming an aviator and the promotion patterns following completion of flight school. The discussion focuses on those aspects of the pilot and navigator/flight officer selection process that may pose obstacles for minority and female candidates.

Selection of Aviators

Service Academies and ROTC. The process of becoming an aviator in the Navy, Marine Corps, or Air Force begins in the senior year for both Academy and ROTC cadets. Cadets at the Air Force Academy are encouraged to pursue rated positions, either as pilots or navigators. Since 1993 all Navy midshipmen have received unrestricted line commissions and are, therefore, required to select careers in aviation (or submarine or surface warfare).⁵⁶ ROTC students may also select aviation but, recently, due to the drawdown, have been more likely to pursue non-flying fields in engineering, intelligence, or a support function. Class rank often is a factor in determining who may select aviation; those graduates with a high class ranking will be favored in the competition for a limited number of flight school spaces. For both cadets and midshipmen, a flight school selection board considers each applicant's academic and military performance, as well as leadership, extracurricular activities, and faculty recommendations before making flight school admission decisions. In addition, the assignments are dependent on

⁵⁵ This positive trend also occurred among rotary wing (helicopter pilots) in the military Services. In the Army, commissioned officers accounted for 38 percent of rotary wing pilots in 1997. In the Navy, Marine Corps, and Air Force, virtually all rotary wing pilots are commissioned officers. A comparison of the distribution of rotary wing pilots by minority status and gender in 1990 and 1997 shows that minority pilot representation rose from 7.2 to 9.8 percent as the number of rotary wing pilots (commissioned officers) declined by 27 percent. The percentage increases were largest in the Army and Marine Corps—these two Services account for almost 90 percent of all helicopter pilots. Female representation rose as well—from 3 to 3.8 percent over the 1990-1997 period. The source for these figures is the Defense Manpower Data Center.

⁵⁶ Unrestricted line commissions refer to those billets qualified to command at sea (surface warfare, submarine, and aviation).

achieving an acceptable score on the Aviation Selection Test Battery (ASTB) in the Navy and Marine Corps, or the Air Force Officer Qualifying Test (AFOQT) in the Air Force.

On the surface there is nothing in these selection criteria that would mitigate against minorities or women being chosen for flight training. Between 1980 and 1993, about 30 percent of the women graduates from the Air Force Academy were selected for flight training; this compares with a rate of 61 percent for men during the same period; recall, however, that women were restricted to non-combat aircraft until 1993. However, the consistently low percentages of minorities entering aviation (relative to other military occupations) suggest that the selection system may present obstacles for minorities, particularly when there are more applicants than positions available.⁵⁷

The impact of the recent military downsizing is an important factor when viewing the demographics of the future military aviator population. During the last five years, the number of Academy and ROTC graduates entering flight training has fallen as the drawdown proceeded. For example, 66 percent of the Air Force Academy graduates entered flight training in 1989, to become either pilots or navigators. By 1994 that figure fell to 22 percent, although the total Academy production remained about the same. While this was the result of a decision to underproduce against future requirements—so as to retain experienced combat aviators—the temporary reduction in the requirement for aviators has undoubtedly changed both majority and minority member opportunities for aviation as a career choice. However, if minorities are less inclined at the outset to pursue a career in aviation, then the negative impact of this underproduction on their preferences for flying jobs may be magnified in the future.

Officer Candidate School (OCS) and Officer Training School (OTS). A third source of aviators has been the Officer Candidate School in the Navy and Marine Corps, and Officer Training School in the Air Force. The application process for becoming an aviator from these schools is similar to that described above; the selection criteria are also similar but class rank is not a factor. This source has been the traditional route for members with prior military service in the enlisted ranks to obtain an officer commission. As such, it has allowed many minority members to compete successfully. Prior to the recent drawdown the Navy, Marine Corps, and Air Force obtained a large number of pilots from this source, but today only the Marine Corps recruits significant numbers of pilots from the OCS population.

Aviation at HBCUs. The Air Force has recognized the need to provide increased mentoring for minority students in aviation—particularly for Blacks whose representation in the aviation field has remained stubbornly low over the past 15 years. A recent initiative by the Office of the Secretary of the Air Force illustrates one approach. Beginning in the summer of 1997, the Air Force, through Delaware State University, offered a 10-week introductory course in aviation and aerospace studies. Students are selected from the ROTC programs at HBCUs or other minority institutions based on their interest, aptitude, and qualifications for pilot training. During the summer course, 45 hours of flight training are provided and, at the completion of the 10-week course, the students qualify to test for a pilot's license. Students also receive instruction

⁵⁷ Data on ROTC Air Force pilot selection rates follow a similar pattern. Between 1981 and 1992 White males were selected at a 29 percent rate whereas minorities and women were chosen at rates of 11.4 and 4.4 percent, respectively. See National Research Council, *Taking Flight* (Washington DC: National Academy Press, 1997), pp.142-144, Table 5-4.

in non-flying activities, such as maintenance, within the aviation community. The goal of the program is to prepare minority students to return to their ROTC units with the skills and motivation to pursue a successful career as an Air Force pilot.

During the first two years of the program, five Black students (4 men and 1 woman) completed the program. Following graduation, two students were commissioned and entered flight school. The remaining three are still completing their undergraduate degrees. Four of the five students have passed the examination for a civilian pilot's license.

Flight School Selection Procedures he mpact of Cut Off Scores

All cadets and midshipmen who choose fixed wing aviation must first achieve minimum scores on the ASTB (Navy and Marine Corps) or the AFOQT (Air Force). These tests have been shown to be valid (i.e., there is a large and statistically significant correlation between the scores on composites of ASTB subtests and subsequent performance) and to be free of either race or gender bias (i.e., there is no statistically significant difference in the relationship between test scores and performance for different race and gender groups).⁵⁸

Although Navy and Marine Corps pilots enter the same flight school program, the selection procedures are different between Services. In recent years, the Navy has used a slightly lower cut-off score than the Marine Corps and has chosen to allow selective waivers for applicants who score slightly below the standard but are otherwise highly qualified. In recent years, the Marine Corps has not selected any entrants who fail to score at least the minimum on the ASTB.

How does the use of test scores influence the selection rates of minorities for aviation? Evidence on this question has been provided in a recent study using data for Navy pilots covering the period 1988-1992.⁵⁹ The study attempts to simulate the impact of imposing a higher ASTB cut-off score while holding the average performance of the pilot graduates constant. The methodology is based on the difference in cut-off scores and waiver policies used by the Navy and Marine Corps during this period. The policies followed by the Marine Corps were applied retrospectively to the population of Navy pilots that actually entered flight school to determine how the population would have differed had the Marine Corps' more restrictive policies been applied in the Navy. The attrition rates and flight school grades of those pilots who would have been excluded were also compared with the rest of the graduate population.

The results of this simulation suggest that test score cut-off points have a major impact on the racial/ethnic mix of flight school entrants. During the 1988-1992 period, 266 minorities were admitted to Navy flight school (including 119 Blacks, 78 Hispanics, 57 Asians, and 12 others). If the higher Marine Corps standard (including a no-waiver policy) had been in effect during this period, 171 minority candidates (or 64 percent of the total) would have been rejected. The results also indicate that Black candidates would have been rejected at the highest rate (87 of

⁵⁸ See Heather E. Roberts and Jacobina Skinner, "Gender and Racial Equity of the Air Force Officer Qualifying Test in Officer Training School Selection Decisions," *Military Psychology*, 8 (2) 1992, pp. 95-113, and Catherine M. Hiatt, Paul W. Mayberry and William H. Sims, *Revalidation of the Aviation Selection Test Battery (ASTB)*, (Alexandria, VA: Center for Naval Analyses, CAB 97-18, July 1997), pp 17-19.

⁵⁹ Captain Brian J. Dean, *Aviation Selection Testing: The Demographic Effects of Cutoff Scores*, Masters Degree Thesis, Naval Postgraduate School, March 1997.

119, or 73 percent) while Hispanics and Asian candidates would have been rejected somewhat less frequently, with 44 and 35 percent reductions, respectively.

The group of Navy pilots who scored lowest on the ASTB also had higher attrition and lower performance, measured by flight school grades. This group, representing about 15 percent of the total and including the 171 minority pilots who would have been rejected under the Marine Corps cut-off score, were 10 percent more likely to attrit from training and had flight school grades 3 percent lower on average. Almost 70 percent of these pilots completed their training. These results highlight the trade-off involved when waiver policies are used: many applicants who score below a minimum cut-off point, but who are otherwise highly qualified, are likely to perform at almost the same level as those who score above the cut-off level.

Attrition from Flight Training

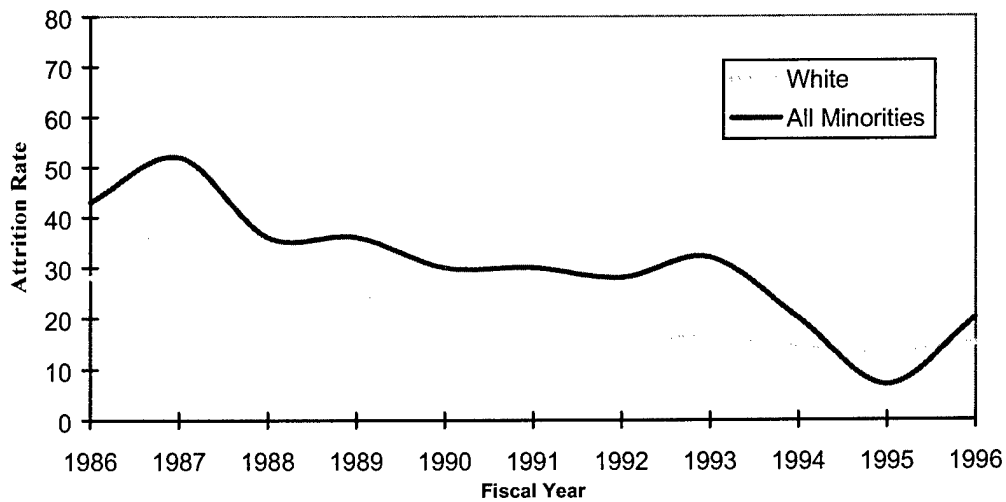
The discrepancies among ethnic groups in selection rates for flight school are the single most important factor leading to the relatively low representation of minorities in the ranks of military aviation. However, not all of those admitted to flight training complete the full course and become qualified as pilots or navigators/flight officers. This section examines the differences by group in training attrition, focusing primarily on the Air Force where the most detailed data are readily available.

Air Force Attrition Rates.⁶⁰ An Air Force officer selected for pilot or navigator training will normally attend flight school for 52 weeks. During this training period a candidate may fail to graduate for several reasons. The most common reason for attrition is a failure to achieve basic flying proficiency. Other reasons for attrition from flight school include failure to maintain physical standards (primarily eyesight related) or failure to exhibit a proper attitude toward flying consistent with professional standards.

The accompanying figures show the flight school attrition patterns for Air Force pilots (Figures 4-1 and 4-3) and navigators (Figures 4-2 and 4-4) by race and gender over the past 10 years. Figure 4-1 indicates that attrition from Undergraduate Pilot Training (UPT) has been, until very recently, considerably higher for minorities than for Whites. Over the 11-year period about one of every three minority students has "washed out" of pilot training compared to one out of four for the White majority. However, this average conceals several trends.

Attrition rates in general have fallen steadily over the period, from 35 percent in 1987 to less than 20 percent in 1997. This decline was due to several factors. First, concerns over the high attrition rates in the mid-1980s led DoD to direct the Air Force to introduce policies to

⁶⁰ Data were provided by the U.S. Air Force, Air Education and Training Command.

Figure 4-1. Air Force Pilot Attrition Rates by Race/Ethnicity


reduce attrition. Second, the impact of the drawdown has been to temporarily reduce the UPT entrant pool by over two thirds. Thus, the number of minorities entering pilot training fell to a very low level—fewer than 100 minority students entered Air Force flight school in 1995 and 1997. Perhaps as a consequence, those few candidates were both highly motivated and proficient, resulting in actually lower minority attrition rates comparable to White attrition rates during those years. Figure 4-2 shows a similar pattern for Air Force navigator attrition rates by race, although the level of navigator attrition is somewhat lower than pilot attrition across the board.

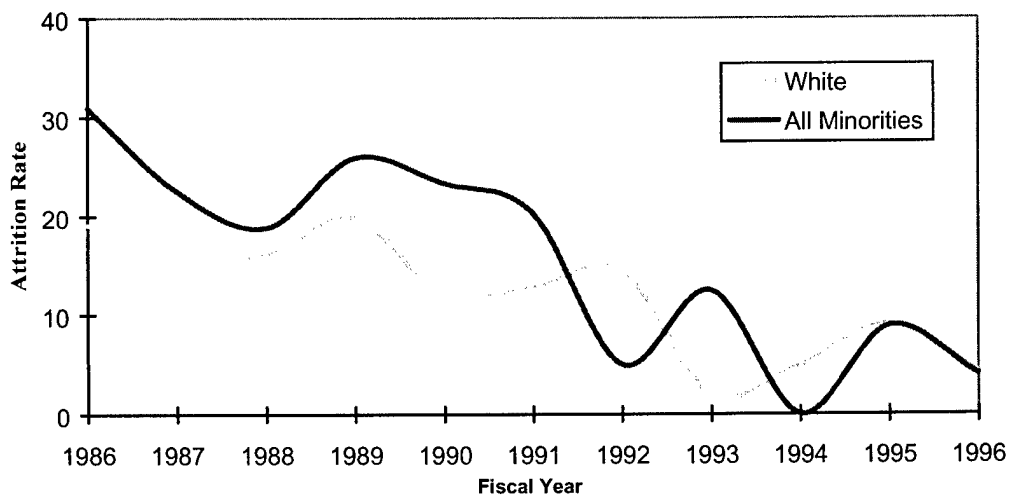
Figure 4-2. Air Force Navigator Attrition Rates by Race/Ethnicity


Figure 4-3 indicates that flight school attrition differences by gender for pilots are negligible since 1990. During the 11-year period female pilot attrition averaged 28 percent while

male attrition averaged 25 percent. However, the situation is reversed for navigators (Figure 4-4) where female attrition averaged 9 percent and male attrition averaged 16 percent. Because the numbers of female navigators entering flight school have been very small (fewer than 17 in any given year), these latter results may simply reflect the fact that only the very best female students were admitted to undergraduate navigator training. The wider fluctuation in the rate for women is due to the small size of the female navigator population. This would also explain the relatively wider fluctuation of minority attrition rates over time.

Figure 4-3. Air Force Pilot Attrition Rates by Gender

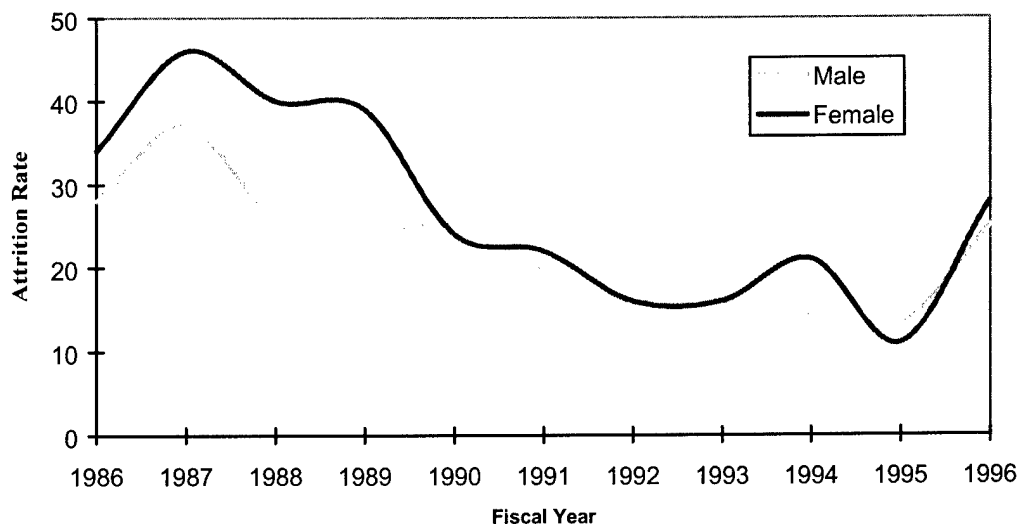
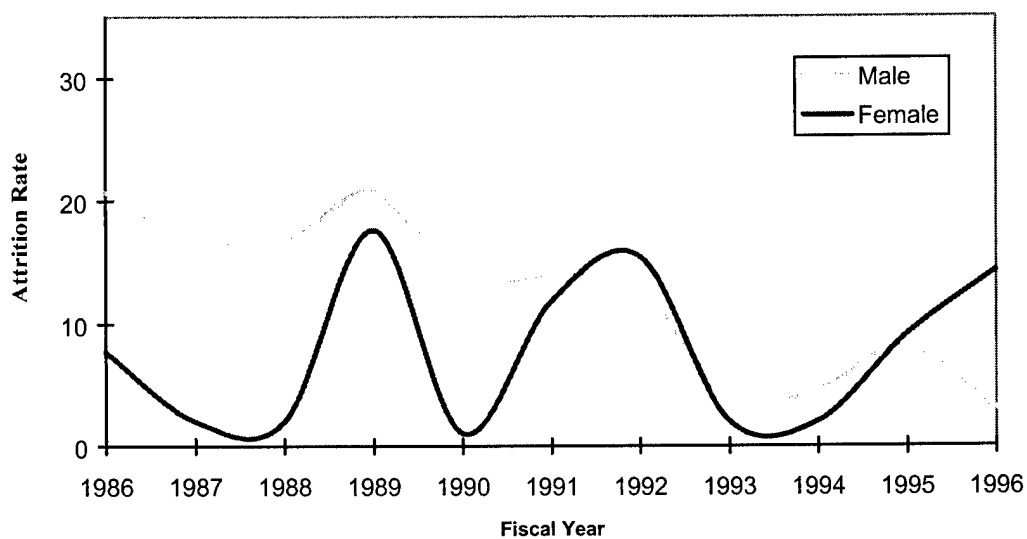


Figure 4-4. Air Force Navigator Attrition Rates by Gender



Navy Attrition Rates. The data on Navy and Marine Corps flight school attrition were limited to the years 1988 to 1992 for pilots only. During that period 3,856 Navy and Marine Corps candidates entered pilot training lasting up to 24 months. The overall attrition rate for the cohort was 20.3 percent, similar to the Air Force rate for those years. The minority attrition rates were 36.1 percent for Blacks, 35.8 percent for Hispanics, and 26.3 percent for Asians. These rates are similar to those discussed above for Air Force flight schools.

Pilot Career Advancement Navy Promotion Board Data

The advancement of officers through the higher grades is an important factor determining who stays and who leaves the military. Promotion board data for Navy pilots covering the cohorts who entered active duty in 1966 to 1985 were examined for Whites and minorities to determine whether different promotion rates contribute to the low representation of minorities in naval aviation. (Similar Air Force promotion data were not available.)

The data in Table 4-5 indicate that promotion rates to pay grade O-4 have been almost identical, 43 and 42 percent for White and minority pilots, respectively. However, at the next two promotion boards, O-5 and O-6, the data show considerably higher selection rates for Whites, 11 and 14 percentage points, respectively. As a result, the proportion of minority pilots in the higher grades begins to decline after about the 10th year of service.

Table 4-5. Promotion Rates of Navy Pilots to O-4, O-5, O-6, by Race

Promotion to O-4	1977-1985	Whites	Minorities
Number Eligible		8,037	269
Number Promoted		3,434	113
Promotion Rate		43%	42%
Promotion to O-5	1972-1980		
Number Eligible		4,970	147
Number Promoted		2,228	50
Promotion Rate		45%	34%
Promotion to O-6	1966-1974		
Number Eligible		3,175	46
Number Promoted		922	7
Promotion Rate		29%	15%

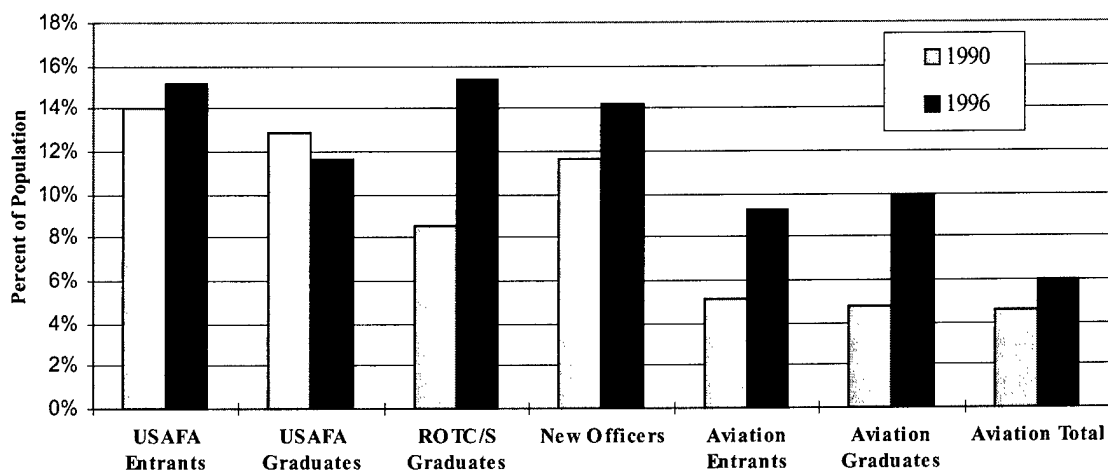
Source: Navy Promotion Board results, 1966-1985

Summary

Because aviation is a high-skill occupation in the military and features some of the most advanced training and technology utilized by the Services, it is important that this community be a model occupation and that the opportunities for entry and advancement be equal for all qualified applicants. The above discussion has considered the various stages of the accession, training, and promotion of aviators, focusing on some of the different outcomes at each stage between Whites and minorities and men and women. Compared to Navy, Marine Corps, and Air Force officers who are White, the overall pattern for minorities shows a lower proportion

selected for aviation with higher attrition in flight school for those who are selected, resulting in a relatively low entry rate into the aviation career field. Although minority representation in the Air Force between 1990 and 1996 has increased at most accession stages (first 4 bars in Figure 4-5), and in both aviator accession categories (next 2 bars), the military drawdown sharply curtailed the production of aviators (last bar of Figure 4-5). Yet even during this period, the number and percentage of both minority and female pilots has increased not only in the Air Force, but in the Navy and Marine Corps as well. As requirements for new aviators begin to rise, opportunities for minorities and women will increase accordingly.

Figure 4-5. Minority Officer Representation in the Air Force: FY1990 vs FY1996



Source: U.S. Air Force and Defense Manpower Data Center

Chapter

Career Progression

Differences in career progression for race/ethnicity and gender groups are likely to be influenced by many factors including entry qualifications, occupation and job assignments, and rated performance. Statistical models were developed and empirically tested to measure the independent effects of demographic variables such as gender and race and these other factors on career progression.

It should be stressed that these models are not intended to be comprehensive but to point out evidence of a systematic relationship between minority status and various indicators of career success--promotion, retention, and selected measures of performance. As it turns out, however, many of the significant factors in the multivariate models are pre-commissioning characteristics, such as college grade point average or class rank. This is an important finding, because it suggests that an effective way to eliminate racial/ethnic and gender differences in early career success, including promotion, will likely involve pre-commissioning intervention and accession policies.⁶¹

Because of the complexity of career progression, the relationship between race/ethnicity and gender and officer outcomes was examined from two perspectives using different data sets and modeling approaches. First, RAND analyzed promotion and retention using the data available for all Services and cohorts to test for the existence of different career paths among different groups. Second, the Naval Postgraduate School (NPGS) explored promotion outcomes in the Navy and Marine Corps more intensively using detailed data on performance ratings, qualification, and initial occupational assignments.

Retention and Promotion Outcomes All Services Combined⁶²

Officer career progression is the net outcome of two processes designated as "promotion" and "retention." Promotion refers to officers being selected by the Services to advance to the next grade. Retention refers to the decision made by an officer to remain in the Service during the time interval between promotion boards. Reaching a particular milestone of career progression--for example, achieving the rank of O-4--is thus the culmination of a number of promotion selections *and* a number of retention decisions. Of course, the two kinds of decisions are not necessarily independent; some officers may decide to separate because they do not expect to be selected for their next promotion.

As the results discussed below show, however, the distinction between promotion and retention outcomes is important in characterizing the career progression of different demographic

⁶¹ Baldwin, J.N., "The Promotion Board of the United States Army," 1996, pp. 204-205 also concludes that "... the most accurate explanations for female and minority underrepresentation most likely involve socioeconomic, educational, cultural, and institutional factors overriding the effects of gender or race...."

⁶² For a more detailed analysis, see *Race and Gender Differences in Officer Career Progression* (Santa Monica, CA: RAND, forthcoming).

groups. This distinction enables a comparison of the career progression of different groups on three metrics: (1) the fraction of officers who were *promoted* to a grade given that they were retained through the previous grade (promotion rate); (2) the fraction of officers who were *retained* during a particular retention interval, (retention rate); and (3) the fraction of officers *attaining* a particular grade having survived all of the previous promotion and retention periods (attainment rate).

Note two important features of this approach in characterizing career progression. First, it allows for the possibility that two groups have the same rate of attaining a particular grade but having done so through very different avenues. For example, group A and group B could have the same rate of attaining O-4, but group A may have had high promotion rates and low retention rates, while group B had low promotion rates and high retention rates. Second, identifying whether differences in career progression stem from promotion versus retention outcomes has implications for equal opportunity assessments. Policies to address promotion differences would likely differ from policies that address retention differences.

To measure promotion-related versus retention-related differences in career outcomes between White male officers and minority or female officers, the records of the individual officers who were commissioned in seven cohorts over the period 1967-1991 in all four Services were combined. The statistical analysis measured race and gender differences in the fraction of officers who successfully completed each of nine career stages, conditional on their having entered that stage. The nine career stages are listed in Table 5-1. Differences in retention and promotion rates were measured for several race and gender groups--White men, Black men, other minority men, White women, Black women, and other minority women.⁶³

With the exception of the first stage, each stage is either a "promotion" stage, if the officer was eligible for promotion at that stage, or a "retention" stage if only a retention decision could be made at that stage. For essentially all officers, Stage 1 covers the first two or three years of service. Most officers are in training during this time and separations may denote failure to successfully complete training. Each of the subsequent promotion stages is defined as the two-year period when officers are eligible for promotion to the next grade. Since promotion timing differs by year of commission, Service, and whether an officer was selected for prior promotions, the promotion stages are defined according to the circumstances of individual officers. The retention stages are defined as the years between promotion stages for each officer.

The analysis estimated race and gender differences in the fraction of the officers who successfully completed each stage, *given they had completed the previous stage*. The estimates are adjusted (or controlled) for differences in promotion and retention rates attributable to factors such as cohort, Service, commissioning source, military service prior to commissioning, and

⁶³ Preliminary analysis uncovered inconsistencies in the recording of race and ethnicity across cohorts and a pattern of changing racial and ethnic identification for Hispanic and Native American service members. More members are identifying themselves as belonging to these ethnic groups, and more self-identified Hispanics and Native Americans are listing their race as 'other'. These patterns are emerging in other data systems as well, including the U.S. Census, and they are described in a 1995 National Research Council report, *Modernizing the U.S. Census*. The impact of these changes is significant for the 'other minority' group, but negligible for the 'White' group and virtually nonexistent for the 'Black' group. For the two earliest cohorts, 1967 and 1970, annual records were available beginning in 1977. The data file included records through 1994, which was the 18th year of service for the 1977 cohort but only the 4th year of service for the 1991 cohort. Therefore, as shown in Table 5-1, the analysis at each career stage is based on different cohorts (or groups of officers).

military occupation.⁶⁴ Hence, the estimated race or gender differences are net of any race or gender variation in these other factors and reflect only the race or gender differences that exist after accounting for these factors.

Table 5-1. Cohorts Used in Analysis of Officer Promotion and Retention

Career Stage	Cohorts Included in Analysis
Stage 1: Promoted to O-2	'77, '80, '83, '87, '91
Stage 2: Retained at O-2	'77, '80, '83, '87
Stage 3: Promoted to O-3	'77, '80, '83, '87
Stage 4: Retained at O-3	'77, '80
Stage 5: Promoted to O-4	'77, '80
Stage 6: Retained at O-4	'67, '70, '77
Stage 7: Promoted to O-5	'67, '70
Stage 8: Retained at O-5	'67, '70
Stage 9: Promoted to O-6	'67, '70
Stages 1-5: Attainment of O-1 to O-4	'77, '80
Stages 6-9: Attainment of O-4 to O-6	'67, '70

Table 5-2 shows the estimated differences in retention and promotion rates for men by race, having controlled for the effects of the other factors. The nine career stages are grouped into three categories: the initial stage, subsequent retention stages, and subsequent promotion stages. In addition, results are shown for the two combinations of stages, or rates of attainment: from entry through promotion to O-4 and from O-4 through promotion to O-6. A negative difference reflects a lower rate for either minority or Black men compared to White men. To put the estimated differences in context, the first column of numbers in the table shows the percent of all officers who successfully complete each stage, given that they have completed the prior stage. Black and other minority men were evaluated separately, although there were not enough members of other minority groups in the data set to measure differences in their progress at later career stages.

Both Black and other minority men are less likely than White men to complete the initial stage of their career (Table 5-2). That is, Black men and other minority men have an O-1 survival rate 2.2 and 1.7 percentage points lower, respectively, than White men. Black men are more likely to be retained at the O-3 and O-5 stages, but less likely at the O-4 level. Black men, for example, have a retention rate 6.7 percentage points greater than their White counterparts at the O-3 grade level, but over 10 percentage points greater at the O-5 grade. The retention rates for other minority men are not statistically significant (i.e. not significantly different from those of White men).

In terms of promotion, both minority male groups are consistently less likely to be promoted than White men. Black men are about 2, 4, and 6 percentage points less likely to be

⁶⁴ Medical and professional occupations are excluded from the sample.

promoted to O-3, O-4, and O-5 than their White peers. The reasons for these differences are unclear.⁶⁵

Table 5-2. Differences In Retention and Promotion Rates Between Minority and White Male Officers (All Services)

Career Stage	Percent of All Male Officers Retained/Promoted	Percentage Point Difference: Minority Male Officers - White Male Officers	
		Black Males	Other Minority Males
Initial stage			
O-1	95.3	-2.2 *	-1.7 *
Retention stages			
O-2	92.1	NS	NS
O-3	64.6	6.7 *	NS
O-4	89.3	-3.1 *	NS
O-5	68.5	10.6 *	(a)
Promotion stages			
O-2 to O-3	87.9	-2.2 *	-2.9 *
O-3 to O-4	74.6	-4.2 *	-8.0 *
O-4 to O-5	73.6	-5.9 *	(a)
O-5 to O-6	50.2	NS	(a)
Combined Attainment Stages			
O-1 through O-4	37.9	NS	-6.2 *
O-4 through O-6	15.4	NS	(a)

(a) Insufficient data for estimation.

* Statistically significant at the .05 level.

NS: Not statistically significant.

The last two rows of the table (attainment rates) show that Black men did not differ from White men in the likelihood of reaching O-4 and O-6. However, fewer other minority male officers reach O-4 than their White male counterparts.

The career progression patterns for female officers are different from those of minority male officers (Table 5-3). Like minority men, women of all races are less likely than White men to complete the initial career stage, and White and Black women have lower retention rates at the O-2 level. Further, White women have a retention rate significantly lower (7.1 percentage points) than men at the O-3 level. Promotion rates show a similar pattern; women of all races have lower promotion rates to O-3, and Black and other minority women are also less likely to be promoted to O-4. White women are actually more likely than White men to be promoted from O-3 to O-4, as their rate is 4.6 percentage points higher than that of their male counterparts. After reaching O-4, however, White, Black, and other women are promoted to the rank of O-6 as

⁶⁵ A recent study of the Army's experience concluded "the most plausible explanation for the shortfall (in promotions of Black majors) is that a disproportionate number of Black junior officers have not acquired the writing and communication skills necessary for promotion to staff jobs." See Charles C. Moskos and John Sibley Butler, *All That We Can Be: Black Leadership and Racial Integration the Army Way* (New York: Basic Books, 1996), pp. 67-8.

frequently as their White male counterparts, as there were no statistically significant differences in their promotion rates.

Table 5-3. Differences in Retention and Promotion Rates Between White and Minority Female Officers and White Male Officers (All Services)

Career Stage	Percent of All Female Officers Retained/Promoted	Percentage Point Difference: Female Officers - White Male Officers		
		White Females	Black Females	Other Females
Initial stage				
O-1	95.3	-1.6 *	-3.5 *	-3.4 *
Retention stages				
O-2	92.1	-2.7 *	-1.8 *	NS
O-3	64.6	-7.1 *	NS	NS
O-4	89.3	NS	NS	NS
O-5	68.5	NS	NS	(a)
Promotion stages				
O-2 to O-3	87.9	-3.4 *	-3.6 *	-5.6 *
O-3 to O-4	74.6	4.6 *	-6.3 *	NS
O-4 to O-5	73.6	NS	NS	(a)
O5 to O-6	50.2	NS	NS	(a)
Combined Attainment Stages				
O-1 through O-4	37.9	-8.9 *	-9.5 *	-16.0 *
O-4 through O-6	15.4	NS	NS	(a)

(a) Insufficient data for estimation.

* Statistically significant at the .05 level.

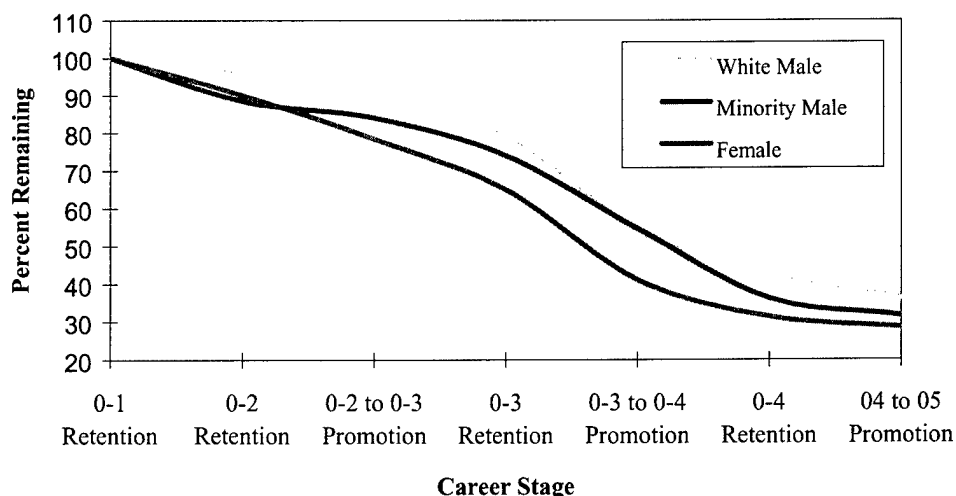
NS: Not statistically significant.

These results show that women of all races had a substantially lower probability of attaining O-4 than their White male counterparts.⁶⁶ While White women were less likely to complete the initial career stage and they had lower rates of promotion to O-3 than White men, the bulk of the difference (about 9 percentage points) in their attainment of grade O-4 was due to their lower retention rates. White women who attained the rank or O-3 were actually more likely than White men to be promoted to O-4. For Black women, their lower rates of reaching O-4 were less related to retention patterns and more related to having lower rates of surviving the initial stage and their lower promotion rates.

⁶⁶ Further analysis of these data suggests that marriage may have substantially different effects on career progression for male versus female officers. Married men were more likely to stay in service and be promoted than single men, whereas the opposite seems true for women. At the O-3 retention stage, when a substantial number of officers leave service, single women were at least as likely to remain in the officer corps as single men; the lower retention rates for women shown in Table 5-3 are concentrated among married White women. The importance of marital status also appears in the lower fraction of female officers who were married at each career stage; by the senior ranks (O-5 and O-6), 90 percent of the men but only 55 percent of the women were married. See *Race and Gender Differences in Officer Career Progression*, 1997.

The analysis of the aggregated Service data indicates that the progress of minority and female officers through the pipeline does differ from that of White men. Figure 5-1 illustrates the pattern of losses from a single cohort (1977) up to the point of consideration for O-5 promotion, the last window observed for this cohort. For most of their career, minority men had retention rates that were up to 7 percentage points below that of White men. Women were even less likely to stay, especially in the O-3/O-4 years. But by the O-4 to O-5 promotion point, the percentages of the original cohort remaining converge, and the differences are no longer substantial.

Figure 5-1. Percent of Officers Remaining After Each Retention and Promotion Stage, by Minority Status and Gender: 1977 Entry Cohort



Even though these analyses provide insight into promotion and retention differences across demographic groups, two important elements are still missing. First, most Services manage the career progression of their officers by occupational specialty, for example, “community” in the Navy and “branch” in the Army. Thus, although the analysis controlled for occupation, it did not consider differences within occupational specialties. An important policy question is whether there are differences in the assignment of officers to occupations, especially since some occupational specialties have faster career tracks and are generally more career-enhancing. Second, an important factor that affects promotion and retention--evaluations of an officer’s on-the-job performance--has been omitted to this point from the multivariate models. To investigate the effect on promotion rates of evaluations of job performance in specific occupations, the next section presents results for Navy and Marine Corps officers, the two Services where additional data have been analyzed.

avy Performance Data Analysis by Occupational Specialty⁶⁷

This section analyzes the different career paths of junior officers in the Navy. To begin, the performance evaluation data underlying the "recommendations for early promotion" to the grades O-2 and O-3 are discussed. This measure is then used to analyze differences in promotion to O-4, the critical career point for officers. The results indicate that early promotion recommendations to grades O-2 and O-3 are an important predictor of O-4 promotion, and minorities tend to fall behind White men at this point in their careers.

The sub-sections that follow investigate possible explanations for these differences. In the Navy, achievement of surface warfare qualification and ship assignment (e.g., the type of ship) are two factors that affect a naval officer's early evaluations (fitness reports). In both these measures minorities are found to be lower than White men, explaining a significant portion of the promotion differences between the two groups. This finding is important because education and academic performance are significant determinants of an officer's qualifications, early assignments, and training opportunities. Thus, as noted above with respect to Army officers (p. 32), policies designed to eliminate the promotion differences at the O-4 grade must address the lower educational ranking of minorities at their initial entry into the Navy.

The focus is on the Navy's primary Unrestricted Line officers, consisting of the surface warfare, submarine, and pilot/naval flight officer communities.⁶⁸ The analyses included officers who remained in the Navy and were reviewed by an O-4 promotion board during the 1985-1990 period. This period was chosen in part because it is not contaminated by the turbulence created by the Desert Storm/Shield mobilization in 1991 and by the onset of the manpower drawdown of the Armed Forces in the early to mid-1990s.

Performance Evaluation Data. The performance evaluation measure derived from the fitness reports was based on an index which indicated whether the individual was "recommended for accelerated promotion," the single most discriminating factor in the rating of officers.⁶⁹ Separate summary scores for each officer were calculated based on the proportion of all of the officer's fitness reports that received a recommendation for an early promotion.

Table 5-4 presents mean (average) values of various performance measures for minorities and Whites. Significant differences occur between the two groups in their ratings on fitness reports. The minority performance measure is 6.5 percentage points lower (.434 vs. .509) on *all*

⁶⁷ The results presented in this section are described in detail in Stephen L. Mehay, *Analysis of Performance Data for Junior Navy and Marine Corps Officers*, Naval Postgraduate School, Monterey, CA, forthcoming.

⁶⁸ The empirical analysis uses a data base constructed from several separate data files. Using information from the Navy Officer Master File, an updated version of the Navy Officer Promotion History Data File was created. This file was based on merged data from separate files containing background, Navy experience, loss data, and promotion board results for all officers going before the Lieutenant (LT/O-3) selection boards between fiscal years 1981 and 1985 and Lieutenant Commander (LCDR/O-4) selection boards between fiscal years 1985 and 1990. In addition, a longitudinal profile of fitness reports was obtained from the Navy Personnel Research and Development Center. Matching social security numbers from the Officer Promotion File to the fitness report files provided a complete history of fitness reports for each officer reaching the LCDR promotion point. A total of 9,777 officers (3,959 surface warfare, 1,804 submarine, 2,614 aviator, and 1,400 flight officer) were included in the basic files, which were the basis for the analysis of performance measures other than promotion to O-4.

⁶⁹ Idell Neuman, Joyce Mattson, and Norman Abrahams, *Development and Evaluation of an Officer Potential Composite*, (San Diego, CA: Navy Personnel Research and Development Center, 1989).

fitness reports received prior to the O-4 boards (EARLYALL). However, the between-group gap (almost 9 points) in ratings on fitness reports as an O-1 or O-2 (EARLY02) is larger than the gap (about 5 points) on reports received as an O-3 (EARLY03).

Table 5-4. Mean Values of Performance Measures for Minority and White Officers

Performance Measure	Full Sample	Minority	White	t-test
EARLYALL	.505	.434	.509	5.110*
EARLY02	.295	.211	.300	4.691*
EARLY03	.555	.503	.558	3.249*

* Statistically significant at the .05 level.

EARLYALL = percent of all fitness reports that contain recommendation for early promotion.

EARLY02 = percent of O-1 and O-2 fitness reports that contain recommendation for early promotion.

EARLY03 = percent of O-3 fitness reports that contain recommendation for early promotion.

Performance Evaluation Models. Table 5-5 provides the results of modeling the determinants of performance evaluations as measured by fitness report ratings. The dependent variable (EARLYALL) is the percent of all fitness reports that contain an early promotion recommendation. The results empirically verify the relationship between minority status (M) and performance evaluations. Model 1 provides a set of baseline estimates. In models 2 and 3, the baseline specification was altered by adding variables that may be correlated with minority status and performance, such as grade point average and selection of college attended. The differences between models 1 and 2 provide a rough estimate of the indirect effect of minority status. In model 1, which provides the baseline specification, the coefficient for M is negative and statistically significant--indicating that minorities are less likely to be recommended for early promotion. Measured at the mean of the independent variable (.505), the coefficient shows about an 18 percent (.09/.505) difference in EARLYALL, which means that the percentage of fitness reports with recommendations for early promotion received by minorities was 18 percent lower than for Whites. However, in models 2 when education-related variables known to be correlated with M are included (GPA, TECHNICAL DEGREE), the coefficient of M falls to .07, yielding a 14 percent (.07/.505) difference in EARLYALL scores at the mean. Thus, about one-fourth of the difference in performance scores between models 1 and 2 is accounted for by differences in academic success.

Another background factor examined is the quality of the undergraduate institution attended. More selective institutions admit more able students; they also tend to have superior resources in the form of better facilities, higher expenditures per student, and higher faculty quality. These differences often translate into higher academic achievement for graduates of more selective colleges. The positive coefficient of the interaction between selectivity and minority status (SELECTIVE COLLEGE * M) in model 3 shows that minorities from selective colleges have significantly higher performance ratings. Moreover, after accounting for college selectivity, the net effect of minority status alone falls to -.051 (.064 - .115), indicating now only

a 10-percent difference in performance ratings between minority and majority members.⁷⁰ Hence, the difference between minority and majority fitness report measures is reduced by about one-half (18 percent vs. 10 percent) when educational factors are taken into account.

Table 5-5. Models of Performance Evaluations for Unrestricted Line (URL) Officers

Variable	Model 1	Model 2	Model 3
MINORITY (M)	-.090 *	-.071 *	-.115 *
GPA	--	.037 *	.038 *
TECHNICAL DEGREE ^a	--	-.020 *	-.020 *
FEMALE	.154 *	.138 *	.138 *
SELECTIVE COLLEGE *M	--	--	.064 *
N	9,777	9,777	9,777

* Statistically significant at the .05 level. Dependent variable: EARLYALL = percent of all fitness reports (prior to O-4 board) containing early promotion recommendations. Other variables included in the model (not shown above) are age, marital status (with and without dependents), community, and source of commission.

^a Undergraduate technical degree in engineering, math, computer science, operations research, or natural science.

Promotion Models. The results of the models of promotion to O-4 are shown in Table 5-6. An approach similar to that used for performance evaluations above was employed. The coefficient of minority status (M) is negative (promotion is less likely) in model 1. In model 2, when GPA and TECHNICAL DEGREE are included as predictors of promotion, the coefficient of M becomes statistically insignificant. Hence, in model 1 the coefficient of M is actually accounting for the effect of an education variable (college background), and when the latter is explicitly included in model 2, the effect of M on promotion is eliminated. Stated differently, the promotion difference attributed to minority status is due more to a difference in a pre-commissioning factor--in this case GPA--than with minority status alone.⁷¹

When a variable for performance ratings on early (O-1 or O-2) fitness reports (EARLYALL) is included in the specification in model 3, the coefficient of M remains statistically insignificant. Note that the effect of GPA and EARLYALL on promotion are themselves both positive and significant as would be expected; that is, those with a higher GPA and a recommendation for early promotion have higher promotion probabilities. In summary, one's early fitness report scores and college grade point average appear to be strong predictors of later promotion outcomes at the critical O-4, "up-or-out" point.

⁷⁰ That is, .051 divided by .505 = .10 (as before from Table 5-4).

⁷¹ It should be noted that both the Navy performance evaluation and promotion models indicate that women were more successful than White males. This may be explained by the fact that relatively few women officers have been included in the aviation, submarine, or surface warfare communities. Thus, those who have advanced to the O-4 promotion point are likely to have received special mentoring in addition to being highly qualified.

Table 5-6. Models of Promotion to O-4 for Unrestricted Line (URL) Officers

Variable	Model 1	Model 2	Model 3
MINORITY (M)	-.183**	NS	NS
GPA	--	.183 *	.129 *
TECHNICAL DEGREE ^a	--	NS	NS
FEMALE	.850 *	.767 *	.713 *
EARLYALL	--	--	1.154 *
N	4,471	4,471	4,146

* Statistically significant at the .05 level; ** Significant at the .10 level. All models include five fiscal year dummy variables (not reported); dependent variable: promoted = 1. Other variables included in the model specification (not shown above) are age, marital status (with and without dependents), community, and commissioning source.

^a Undergraduate technical degree in engineering, math, computer science, operations research, or natural science.

NS: Not statistically significant.

Additional Analyses of Differences in Performance

The data in Table 5-4 indicate that junior minority officers receive lower evaluations than Whites on their fitness reports. Some of the differences in the performance ratings are explained by educational factors in the multivariate models (Table 5-5). Another explanation of differences in performance is the achievement of certain career milestones that are necessary for success in a specific naval warfare community. For the present study, data for the surface warfare community were used because there are good measures of early career success: these measures are surface warfare qualification and ship assignments.

Surface Warfare Qualification. One of the most important milestones for a surface officer is the achievement of warfare designation, i.e. qualification as a surface warfare officer (SWO). The data for SWO qualification indicate that Whites achieve this designation at a 65 percent rate whereas the comparable rate for minorities is 59 percent. This difference may also contribute to the lower performance evaluations received by minorities.

Ship Assignments. The qualification rates for White and minority junior officers are very likely related to their ship assignments. Cruisers and destroyers are the backbone of the surface Navy and these ships have the full range of weapon systems and other equipment necessary to ensure a speedy completion of the qualification process. Thus, assignment to these combatants is particularly important for attainment of SWO qualification.

To determine if the type of ship assignment is related to minority status and other educational variables, two models were estimated: (1) the probability of ever having served on a cruiser or destroyer (COMBAT), and (2) the number of cruisers or destroyers (CRUDES) served on prior to the O-4 promotion board. The results are shown in Table 5-7. In the first model, minorities were almost 25 percent (.236) less likely than Whites to ever have received an assignment to the cruiser or destroyer classes of ships. In model 2, this result is reduced by about 20 percent (after introducing the influence of an educational variable—GPA), but the difference between Whites and

minorities remains statistically significant. In models 3 and 4, the results indicate that minorities also serve on fewer combatants than do Whites prior to the O-4 promotion board. The results in all four models also show that the source of commission was also related to ship assignments with ROTC graduates less likely than Naval Academy graduates to serve on combatants. Minorities are more likely to be ROTC graduates.

The inference from these results is that minorities may receive weaker performance ratings and be less likely to qualify as surface warfare officers due, in part, to their initial assignment. Furthermore, the impact of an officer's initial type of ship is compounded by the fact that officers tend to receive follow-on assignments to a similar type of ship. Thus, in a very real sense, the initial assignment (which is influenced by educational achievement) in the surface warfare community can set the stage for much of one's entire Navy career.

Table 5-7. Determinants of Assignment/Choice of Ship Type

Explanatory Variable	Dependent Variable			
	COMBAT ^a		CRUDES ^b	
	Model 1	Model 2	Model 3	Model 4
MINORITY (M)	-.236 *	-.190 *	-.221 *	-.201 *
ROTC	-.261 *	-.273 *	-.136 *	-.138 *
OCS	NS	NS	NS	NS
GPA	--	.104 *	--	.039 *
TECHNICAL DEGREE	--	NS	--	NS
N	3,959	3,959	3,959	3,959

* Statistically significant at the .05 level. Other variables included in the model specification (not shown above) are prior enlisted service, age, and marital status (with and without dependents).

^a COMBAT = 1 if ever served on cruiser or destroyer.

^b CRUDES = number of cruisers/destroyers served on prior to O-4 promotion board.

NS: Not statistically significant.

Officer Promotion in the Marine Corps

A separate analysis of promotion of minority and White Marine Corps officers was also undertaken based on a special data file consisting of the O-4 promotion board results for fiscal years 1993 and 1994. A Performance Index (PI) was computed by assigning numerical scores to each of the observed performance blocks on officers' fitness reports. Table 5-8 provides average (mean) values for the Performance Index and two other performance indicators (the number of awards received and score on the General Classification Test), and a t-test of differences in the means for White and minority members.

The data show that Whites were more heavily represented in the top 50 percent of scores; minorities were concentrated in the bottom 50 percent. These differences were statistically significant. Similarly, the average GCT score for minorities was roughly 10 points (or about 8

percent) less than for Whites. There was, however, no statistically significant difference in the proportion of minorities and Whites who had received at least one personal award.

Table 5-8. Mean Values of USMC Performance Indicators for Minority and White Officers

Performance Indicator	Minority	White	t-test
HIGH PI	.033	.144	4.334*
MEDIUM PI	.288	.461	2.630*
LOW PI	.677	.393	4.386*
GCT Score	120.270	130.330	9.219*
AWARD	.745	.808	1.202

* Statistically significant at .05 level.

Notes: The distribution of scores on the PI were broken down into those in the top 10 percent (HIGH PI), those in the next 40 percent (MEDIUM PI), and those in the bottom 50 percent (LOW PI). The General Classification Test (GCT) is a test of verbal ability comprising verbal analogy and sentence completion items. AWARD is the proportion of each group possessing at least one award (personal decorations listed on each officer's fitness report).

The results of estimating a multivariate model of promotion to O-4, which includes some performance indicators, are presented in Table 5-9. As was done in the analysis of Navy officer promotion, an attempt was made to determine how much of the difference in promotion was attributable directly to the effect of minority status, and how much was attributable to other factors such as assignment and performance indicators.

Table 5-9. Models of Promotion to O-4 for Marine Corps Officers

Variable	Model 1	Model 2	Model 3
MINORITY (M)	-.293 *	NS	NS
FEMALE	NS	.447 *	.478 *
NUMBER of AWARDS	.902 *	.695 *	.731 *
HIGH PI	--	.554 *	.581 *
LOW PI	--	NS	-1.324 *
COMBAT	--	--	NS
PILOTS	--	--	.171 *
N	1,475	1,475	1,475

* Statistically significant at the .05 level. All models include five fiscal year dummy variables (not reported). Dependent variable: promoted = 1, otherwise = 0. Other variables included in the model specification (not shown above) are graduate education, commissioning source, and number of dependents.

Model 1 provides a set of baseline estimates; the coefficient of -.293 for the minority variable (M) indicates that minorities are less likely to be promoted than their White counterparts. However, when performance variables were included, the coefficient of the

minority variable becomes statistically insignificant which means there is no difference in promotion probabilities between minorities and Whites. The coefficient of M remained insignificant when controls were entered for occupation in model 3. These findings based on two recent years of promotion outcomes indicate that the lower promotion rates of minority officers are due almost entirely to the differences in performance measures (primarily fitness reports), rather than to differences associated solely with race.

Professional Military Education

A potentially important factor in career progression is selection for professional military education (PME) opportunities. Although it was not possible to analyze the PME data in such a way as to determine their relative importance in the promotion process, it is enlightening to see how similar selection rates are by race and gender.

The General Accounting Office found that when the data for the four services were combined over the 1993-1997 period, the selection rates for men and women were not significantly different in about 50 percent of the board or decentralized selections.⁷² The remaining 50 percent of selections slightly favored women. Similar analyses conducted over the 1994-1997 timeframe showed that there was no significant difference in the selection rates of Blacks and Whites in about one-half of the boards; in the remaining half, selections slightly favored Blacks.

Summary

The results of the Navy and Marine Corps models show that White men were more likely than minority men to be promoted to the rank of O-4. These results are in agreement with the RAND results presented earlier in the chapter based on aggregated data for all Services. The Navy models also reveal that educational factors were significant predictors of performance evaluation outcomes (measured by the number of recommendations for early promotion). Performance was positively related to grade point average and the quality of one's undergraduate education. Because fitness reports are a primary factor in promotion board decision, it is not surprising that these educational variables also explain part of the difference in promotion probabilities to O-4 between White and minority men.

The Navy analysis of officer promotions also revealed additional factors that help explain some of these outcomes. Class rank (order of merit) plays an important role in the assignment process. Minorities, on average, entered the Navy with grade point averages lower than Whites; as a result, they were less likely to have received assignments in the more highly selective aviation and submarine communities. In the surface warfare community, they were less likely to

⁷² General Accounting Office, *Gender Issues: Analysis of Promotion and Career Opportunities Data*, GAO/NSIAD-98-157, May 1998. Data were obtained from the Military Equal Opportunity Assessment reports submitted by the Services to the Office of the Secretary of Defense. To determine whether any differences in selection rates either between men and women or Blacks and Whites were statistically significant, the "four-fifths" test was applied. This rule of thumb, established by the four federal agencies responsible for equal employment opportunity enforcement (the Departments of Labor and Justice, the Equal Employment Opportunity Commission, and the Office of Personnel Management), holds that a selection rate for a subgroup that is less than four-fifths (80 percent) of the rate for the group with the highest selection rate is considered a significantly different rate.

be assigned to primary combatants (cruisers or destroyers) where attainment of surface warfare officer qualification status is most readily achieved. Since this qualification is viewed as an important benchmark by promotion boards, it follows that the lower fitness reports of Navy minority officers reduced their probability of promotion to O-4, relative to their White male counterparts. The Marine Corps models also showed that fitness report scores of junior officers were an important predictor of promotion to O-4, and that minority officers had significantly lower scores than White male officers. The data underlying both the Navy and Marine Corps analyses, however, cannot show whether the differences in performance evaluation scores were also influenced to any degree by race or ethnic bias.

Female officers as a whole also were less successful in attaining the rank of O-4, although there were exceptions for certain subgroups. All women were less likely than White men to be promoted to O-3. However, once promoted to that rank, White women were more likely to be promoted to O-4 than White men; the reverse was true for minority women. In the Navy (surface warfare) and the Marine Corps, women who had attained the rank of O-3 were more likely to be promoted to O-4 than White men.

More recent promotion data for 1989-1993 have been analyzed by the General Accounting Office.⁷³ Using a methodology that did not control for differences in educational variables or performance evaluations between officers, the GAO findings indicated that minorities, and Blacks in particular, showed statistically significant lower odds of being promoted to O-4. By contrast, there were no statistically significant differences in the odds of promotion to O-4 by gender.

Despite these differences in promotion probabilities, the representation of minorities has grown substantially for all race/ethnic groups over the 1987-1996 timeframe; the same is true for women (see Tables 2-4 and 2-5). Within a key occupational group--tactical operations--the representation has also improved markedly since 1987. For Blacks assigned to tactical operations jobs, representation in the ranks of O-4 to O-6 increased by 55 percent, 33 percent, 115 percent, and 21 percent over the last ten years in the Army, Navy, Air Force and Marine Corps, respectively. Similar improvements have occurred for other minorities. And the number of women serving in tactical operations jobs in the ranks of O-4 to O-6 has more than doubled. As a result, the pool of minorities and women--from which many of the future flag and general officers will be chosen--has grown by 25 percent over the past ten years.

⁷³ The General Accounting Office analyzed the data contained in the Military Equal Opportunity Assessments (MEOA) for the years 1989 through 1993. The study examined accessions, assignments and promotions by comparing each minority group to the majority group to White men. See General Accounting Office, *Military Equal Opportunity: Certain Trends in Racial and Gender Data May Warrant Further Analysis*, GAO/NSIAD-96-17, November, 1995, p. 8.

Chapter

Performance Evaluation and Recognition

As officers move through the pyramidal hierarchy of the military organization, both promotion and retention decisions are affected by performance evaluations. Job-related behaviors are the focus of these evaluations, but other factors considered include leadership abilities, "military bearing" (i.e., one's appearance in uniform), performance on the physical training test, ethics, and an officer's support of equal opportunity. Performance evaluations also factor heavily in each officer's assessment of his or her future military career opportunities. As such they are a critical determinant in an officer's stay or leave decision.

he Evaluation Process

Central to career management within the Armed Services are formal systems to evaluate an officer's performance. Officer evaluation reports are used by the Services to select individuals for assignments, promotions, transfers, and schooling. Singularly important, evaluation reports are crucial in identifying the best officers in the corps without regard to race, gender, or religion. A review and assessment of the evaluation reports currently used by the Armed Services is provided later in this chapter.

Officer performance is assessed in all four Services through written performance evaluations. An officer's evaluation constitutes the primary record of his or her performance and is reviewed by selection boards. Generally, evaluations are written by each officer's immediate supervisor. Rating officers are senior in grade or rank to the rated officers and there is generally a requirement for review and/or additional comments from one or more senior officers or civilians in the chain of command or supervision. Although the specific format varies by Service and, within Services, over time, there are some common elements. In general, an evaluation consists of brief written descriptions of the officer's job, his or her notable accomplishments during the period being evaluated (usually a year), his or her overall performance and potential, and recommendations for next career steps. In addition to these written comments, the officer's performance is rated on one or more scales. In particular, all Services conclude the evaluation with some form of overall score of an officer's performance. This score is expressed either as an explicit ranking of the officer relative to others reviewed by a senior rater, or as a more general ranking relative to the entire cohort.

Another element taken into consideration during the performance evaluation process, particularly at the more senior ranks, is the job or assignment in which the officer is serving. The more challenging the job, the more weight carried by the performance evaluation.

Army. The current Army evaluation system for active duty officers went into effect in October 1997. Rating officers record the performance evaluation on the Officer Evaluation Report (OER), which also provides for an assessment by an intermediate rater (if there is one) and a senior rater. The rated officer provides input to the process by recording, on an OER Support Form, his/her achieved objectives along with other accomplishments and contributions made during the rating period. The rater begins by using a "Yes/No" block check to provide an assessment of the officer on a number of factors: Army Values (loyalty, duty, respect, selfless-service, honor, integrity and personal courage), Leader Attributes (mental, physical, emotional), Skills (conceptual, interpersonal, technical, tactical), and Actions (communicating, decision-making, motivating, planning, executing, assessing, developing, building, learning). In addition to the "Yes/No" blocking, the rater identifies six of these attributes, skills, and actions that best describe the officer's strengths. The rater then provides an overall assessment of performance and potential by marking one of four block options and writes a paragraph explaining the rating. The rater's block check options are: outstanding – must promote; satisfactory – promote; unsatisfactory – do not promote; and other. Intermediate raters, when used, reinforce or amplify areas of performance that they have personally observed.

Senior raters evaluate using two separate block checks and narrative comments. The first block section is a general evaluation of the rated officer's promotion potential as compared to all officers of the same grade. The second block check is a specific evaluation of the rated officer against all officers of the same grade which the senior rater has considered or is currently considering. Senior raters can choose between Above Center of Mass; Center of Mass; Below Center of Mass-Retain; or Below Center of Mass-Do Not Retain. These are two distinctly separate evaluations with no link between the two intended. Senior raters write a narrative, which includes performance and potential. They are also required to list three future assignments, 3-5 years out, and recommend a career field/branch or functional area for the rated officer, and may make education recommendations.

Other highlights of the OER System are:

- All rated officers must receive a copy of their rating official's Support Form. A requirement exists to complete an initial face-to-face counseling between rater and rated officer on the Support Form within the first 30 days of a rating period.
- A Junior Officer Development Support Form establishes developmental tasks for all lieutenants.
- An electronically generated label is placed over the senior rater's box check for potential to control inflation and maintain senior rater accountability. Senior raters must maintain their Above Center Mass box check at less than 50 percent per grade; 33 percent is the Army goal.
- Rated officers sign the completed OER last, when possible, allowing them to see evaluations prior to submission.

Navy. Officers receive regular performance evaluations in the form of fitness reports—called FITREPS. There are three types of reports: regular, concurrent, and special. Regular

FITREPS are submitted annually, or upon the detachment of the officer or his or her reporting senior from an assignment. Concurrent reports are made by a second reporting senior on an officer away at school or on temporary additional duty. Special reports are made for a specific event or period of time, when the officer's performance warrants mention, whether positive or negative.

The FITREP includes a description of the officer's current duties and responsibilities, a physical readiness rating, a performance rating, comments describing the officer's performance, a competitive ranking which measures the officer's performance in comparison to other officers being evaluated by the reporting senior, and a promotion recommendation. Like all the Services, the Navy has periodically revised its performance evaluation system in an attempt to reduce rating inflation, as well as to achieve greater objectivity or otherwise enhance the evaluation process.

In the FITREP, seven performance traits (but no personal traits) are evaluated. The traits are carefully defined, and one of five scores may be assigned to each. A score of "1" indicates that performance is "below standards" ("lacks initiative, unable to plan or prioritize, does not maintain readiness, fails to get the job done"), while a "3" means the officer "meets standards" ("takes initiative to meet goals, plans/prioritizes effectively, maintains high state of readiness, always gets the job done"). A score of "5" indicates that the officer "greatly exceeds standards" ("develops innovative ways to accomplish mission, plans/prioritizes with exceptional skill and foresight," etc.). The reporting senior enters the average of the trait grades for the report. This is not a relative evaluation, however, and no ranking with respect to one's peers is provided on the form.

Small sections are available for "command employment and command achievements," and also for a description of "primary/collateral/watchstanding duties." A larger section for general comments is provided, but several guidelines have been adopted to control the content and format of this section. First, comments must substantiate all "5" and "1" scores. No numerical rankings are permitted and all comments "must be verifiable." The form must be typed in a standard format and both highlighted type and handwritten comments are prohibited. Finally, the form includes a promotion recommendation, which can be marked "not observed," "significant problems," "progressing," "promotable," "must promote" and "early promote." Early promote recommendations are limited to 20 percent of each summary group, and "early" and "must promote" recommendations are limited to a combined total of 50 percent of each summary group at the O-3 and O-4 levels, 40 percent combined at the O-5 and O-6 levels. Promotion recommendations (including early promotion) can be made even for officers not yet eligible for promotion. An officer not yet eligible for an early (below the zone) promotion may still be rated "promote early" simply to indicate the reporting senior's high opinion of the officer.

Marine Corps. Marine Corps officers receive performance evaluations (also called FITREPS) on a regular basis. There are four types of USMC fitness reports: regular, concurrent, academic, and special. Regular reports are given semi-annually, and also whenever the officer is detached, changes duty, or is promoted, and whenever the officer's reporting senior changes. Concurrent and special reports serve the same purposes as they do in the Navy.

The immediate commanding officer or head of the staff section generally serves as the officer's evaluator, or reporting senior. The officer to be rated is responsible for providing the reporting senior with a signed FITREP with certain entries completed by the officer. The

reporting senior grades the officer on performance (regular and additional duties, handling of officers, handling and training of enlisted personnel, tactical handling of troops) and qualities (endurance, personal appearance, military presence, attention to duty, cooperation, initiative, judgment, presence of mind, force, leadership, loyalty, personal relations, economy of management, and growth potential). Grades range from below average to outstanding. "Not observed" may be assigned to any category in which the reporting senior feels his or her observation has been too limited for evaluation.

The FITREP also asks the reporting senior to express his or her willingness "to have this Marine under your command ... considering the requirements of service in war," and asks for an indication of commendatory, adverse, or disciplinary action to which the officer was subject. A narrative section instructs the reporting senior to appraise the officer's potential. Reporting seniors are also asked to list in alphabetical order all officers of the same grade to whom he has given "outstanding" ratings and to rank the officer who is the subject of the review, among the officers listed.

Finally, a reviewing officer (typically the reporting senior's commanding officer) reviews the FITREP and concurs/does not concur with the reporting senior's ranking and evaluation of the officer. The reviewing officer may add narrative remarks; such remarks are required if a "do not concur" is given.

Air Force. Performance is evaluated on the Officer Performance Report (OPR), first by the officer's immediate supervisor (the rater) and, in most cases, by the supervisor's superior (the additional rater), who usually must be at least one grade senior to the officer being rated. The OPR undergoes a quality-control review by a senior officer (the reviewer), who adds comments only if he or she disagrees with the rating. The reviewer is the wing commander or equivalent for lieutenants through majors and the first general officer in the chain of command for lieutenant colonels and colonels.

The OPR includes a description of the unit mission, the job, and the officer's significant achievements in the job. Six performance factors are evaluated on a "meets standards-does not meet standards" scale. The factors are job knowledge, leadership skills, professional qualities, organizational skills, judgment and decisions, and communication skills. Finally, the rater and the additional rater each provide an assessment of the officer's performance, and the reviewer indicates whether he or she concurs.

Between OPRs, supervisors are required to provide interim feedback to their officers through a hand-written Performance Feedback Worksheet and a face-to-face meeting; supervisors sign the form to indicate that this session occurred. The worksheet includes a rating for each component of the six factors rated in the OPR, using a continuous scale labeled "needs little improvement" at one end and "needs significant improvement" at the other end. There is also space for comments on the ratings, which are intended to clarify problems, provide specific examples, and offer any other suggestions or assessments. These feedback sessions are intended to be an important component of the evaluation system.

The OPR is augmented by the Promotion Recommendation Form (PRF), which is completed, at the earliest, 60 days before the officer is considered for promotion in, above, or below the zone, and is provided to the officer approximately 30 days prior to the board. The senior rater at the time—the same individual as the reviewer on the OPR—completes this form, which includes the same descriptions and narratives as the OPR and a recommendation to definitely promote, promote, or not promote based on the officer's cumulative record. The number of officers who can be given a “definitely promote” recommendation is limited. Senior raters forward their PRFs to a management level review board. In addition, 10-15 percent of the below-the-zone candidates can be given a “definitely promote” recommendation. The senior raters forward their PRFs to an evaluation board consisting of senior raters from the Air Force major command, or headquarters organization level.

Inflation in Performance Evaluation

In a competitive environment, it is not unusual for any grading or performance evaluation system to become inflated. Inflation over time has been a consistent issue in all the Services. When ratings become inflated to the point that the system no longer functions as designed, with most officers being rated in the “top blocks,” the system may not do an adequate job of differentiating performance among officers. With inflated grading, then, the language used to describe the officer and his or her performance takes on paramount importance; an example often cited by officers is the fine difference between an “excellent” officer (not “up to snuff”) and an “outstanding” officer (a good officer). The word “average,” when describing performance, clearly has a negative connotation and, in the military context, is unacceptable.⁷⁴ This means that raters are faced with a mathematical incongruity when rating the majority of their subordinates as “above average.” The Services are well aware of these issues, and revisions to the Service’s forms are undertaken periodically.

The competitive assignment and promotion system, combined with persistent performance evaluation inflation, can lead officers to perceive that they are in a “zero-defect” career system in which performance that is reported as being less than outstanding may doom a career, even at lower ranks when officers are learning and might be expected to have room for performance improvement.⁷⁵ Officers who make mistakes or run into serious problems may have little opportunity to learn from their mistakes and it may become harder to distinguish the truly exceptional officer. Though selection board members are quite adept at interpreting the performance-evaluation “code,” from time to time the Services find it necessary to “reset the system” by introducing a new performance evaluation tool.

Assessment of an officer’s technical proficiency, as well as characteristics such as self-discipline, communication skills, management and leadership abilities, and military bearing coalesce in the officer evaluation system. The assessment of an officer’s performance is not only central to the military’s career management system, but also critical to his or her career progression. To better understand how individuals viewed the evaluation system, special qualitative analyses were undertaken through a series of interviews and focus groups.

⁷⁴ R. I. Henderson, *Performance Appraisal*, (Reston, VA: Reston Publishing Co., 1984), p. 13.

⁷⁵ *Race and Gender Differences in Officer Career Progression*, forthcoming.

Perceptions of the Evaluation System

The conclusions drawn in this chapter derive primarily from qualitative analysis of the perceptions of service members on the career development process. In contrast to the *quantitative* analysis of race and gender differences in career progression presented in Chapter 5, the *qualitative* analysis presented here and in Chapter 7 is not designed to draw statistical inferences. Instead, it identifies issues, experiences, attitudes, and beliefs through direct interface with individuals—in this case, officers in each of the race/gender groups. Thus, the qualitative research elucidates issues that cannot be evaluated through a purely quantitative approach, and allows officers to talk about their actual experiences. The focus group method tends to be more labor and time intensive, and necessarily involves a limited number of participants. Therefore, these qualitative results may be less generalizable to the total military population than results from broad statistical analyses of survey data or administrative records. Yet, this methodology is often best for capturing in-depth, detailed perceptions of individuals' experiences and reactions to military career management.⁷⁶

The Definition and Measurement of Performance. There was near uniform agreement among officers interviewed that an officer's success is driven primarily by job performance and its recognition through the officer evaluation system. Promotion board members felt strongly that the primary factor they looked for when reviewing a promotion candidate was "a sustained manner of performance." Mid-career officers concurred, commenting that "performance is all that matters."

There was also near uniform agreement among officers that factors other than an individual's ability can affect one's performance. Much of an individual's performance is determined by the set of intellectual, physical, and social skills that the person brings to an assignment. Yet, other service members, and the institution itself, can create or limit opportunities for officers to apply their abilities. Examples derive from the formation of work, peer, and mentoring relationships. Such relationships can substantially affect an officer's performance and recognition, yet, these relationships develop for many reasons other than an officer's ability. Work, peer, and mentor relationships can also develop from common social interests, family ties, friendships, "seeing oneself" in a younger officer, or being an alumnus of the same college or academy.

In addition to the potential disadvantage minorities and women may face in demonstrating performance and achieving recognition, they can also be disadvantaged by the manner in which performance is measured. It is clearly difficult to assess performance on the basis of how well a job is completed, as actual outcomes are often unmeasurable. As a result, performance is often measured by the process of work (how you go about doing the job) or proxies for outcomes (do you fit the traditional image). The use of processes and proxies as measures favors traditional approaches to job performance. If members of a group have difficulty applying the traditional style

⁷⁶ Ibid. Interviews and focus groups were conducted with 143 mid-career officers (primarily at the O-3 and O-4 level) and 45 officers who had recently served on either an O-5 or O-6 promotion board. The sample of interviewed mid-career officers comprised approximately 29 percent White men, 29 percent Black men, 27 percent White women, and 15 percent Black women. A somewhat smaller number of Black women was interviewed because it was difficult to find a sufficient number who were available to participate in the study. The observations and findings in this report reflect primarily the contrast between the experience of Whites and Blacks and men and women.

or meeting the traditional image, they are likely to be evaluated less favorably than others, regardless of whether they are equally able to attain a similar outcome.

For example, female officers may be less able to project a physical leadership style and therefore tend to rely on less confrontational styles of leadership. Leadership is an important skill on which officers are regularly rated, yet the style of leadership is a *process* rather than an *outcome*. While women officers may be able to achieve similar outcomes with their unit, they may be evaluated as having weaker leadership skills because they employ a less traditional style of leadership.

A pair of Navy studies lends some support to this assertion. In a 1983 report of gender differences in FITREPS, "men's evaluations contained significantly more narrative material than did women's" Men were seen as more qualified, logical, dynamic, mature, and aggressive than were women. Men, more so than women, were reported to be effective in training others, have Navy characteristics, be concerned with physical fitness, have a supportive spouse, and improve unit readiness, facilities, and safety conditions of their commands. Women, more so than men, were described as being supportive of equal opportunity programs, impeccable in uniform, and an asset to their command.⁷⁷

The conclusion of a follow-up study 10 years later, subsequent to targeted informal ratee and formal rater training, clearly showed the progress the Navy had made.⁷⁸ It was no longer the case that male evaluators think of "women as cast from a traditional mold and have difficulty in viewing them in active, competitive roles." Also, no evidence was found of sexist language in the fitness reports of women officers. The evaluators for the women officers in this new sample viewed their female subordinates as equally dynamic, energetic, assertive, aggressive, and ambitious as their male peers, if not more so. However, leadership was the only area where men were seen as still more effective than women. Whether this finding indicates that women are actually less effective leaders than men, that they have less opportunity to display their leadership abilities, or simply that women's leadership styles are different from those of men is an unanswered question.

The Use of Performance Evaluations in Board Deliberations

The Services use a board process for making decisions regarding many aspects of an officer's career: promotion, command assignment, in-residence professional military education (PME) school attendance, and selective early retirement decisions. While the process by which boards deliberate differs slightly across the four Services, the substance of the deliberation is essentially the same. Boards consider the full range of information in a candidate's file, including the officer's assignment history, military and civilian educational certifications, distinctions and honors, and any reports of judicial punishments or admonishments. Still, board deliberations center primarily on the candidate's record of performance evaluations.

A candidate's files may contain several items in addition to specific information regarding the officer's career development and performance. In the Navy, Army, and Marine

⁷⁷ Patricia J. Thomas, Brenda L. Holmes, and Laura L. Carroll, *Gender Differences in the Evaluation of Narratives in Officer Performance Ratings*. TR-83-14 (San Diego, CA: Navy Personnel Research and Development Center, March 1983), pp. vii, 14.

⁷⁸ Patricia J. Thomas, Zannette A. Perry, and Kristine M. David, *Fitness Reports of Naval Warfare Officers: A Search for Gender Differences*, TR-94-10 (San Diego, CA: Navy Personnel Research and Development Center, May 1994), p. 19.

Corps, the file includes a candidate's photo. In all Services, candidates are permitted to include a personal letter to the board. Those few officers who choose to submit letters do so to provide the board with context for understanding material in their files or to notify the board of information, such as PME completion, that has not made it into the official record.

To be competitive for promotion, candidates must first ensure that they have gathered the set of basic credentials: completion of appropriate PME courses or civilian postgraduate degrees, a very limited number of non-top block marks in their performance evaluations, and, where required, a current photo.⁷⁹ Beyond these basic credentials, candidates must demonstrate to board members a credibility in their career field, a sustained manner of excellence in performance, and a potential for future leadership. Board members assess these three qualities primarily through a review of the candidate's assignment history and performance evaluations.

Career field credibility is usually demonstrated by progressing through the appropriate sequence of assignments for one's field, especially through particularly difficult, critical, or high profile assignments. Individuals with atypical assignment histories can have difficulty demonstrating career field credibility. Atypical histories develop for a variety of reasons; for example, switching career fields several years into one's career, accepting an otherwise atypical position in order to co-locate with one's spouse, or failing to receive important assignments because of past marginal performance.

Board members assess a candidate's manner of performance by matching the assignment history to the performance evaluations. Officers must consistently receive strong performance evaluations. A single negative evaluation can be overcome, but only if followed by a return to a higher manner of performance. The wording of reviews by senior raters is particularly important, especially if the wording demonstrates a familiarity with and sincerity in the review of a candidate. In the Marine Corps, where the senior rater is required to explicitly rank candidates against their peers, a high significance is placed on being rated highly among many peers; a high rating by a senior rater that reviews only one or two candidates is given less weight. In the Army, where officers are ranked against a board standard (rather than directly against their immediate peers), greater weight is placed on the senior rater's written evaluations.

Officers demonstrate potential for leadership through strong performance in command positions and through the explicit enthusiastic recommendations by senior raters for future command assignments or in-residence school placements. Officers can also demonstrate future potential by showing personal initiative in advancing their careers. Early completion of PME by correspondence or completion of civilian postgraduate programs on one's own time are ways in which officers can demonstrate such personal initiative.

Prior to deliberating, boards are provided a set of instructions or precepts, which are signed by the appropriate Service Secretary. DoD Directive 1320.12 requires that the precepts include "guidelines to ensure the consideration of all officers without prejudice or partiality." The instructions for all four Services emphasize that current performance is the overriding factor in the

⁷⁹ Subtle but important Service differences exist in the evaluation of these basic credentials. For example, a postgraduate civilian degree is a *de facto* standard for promotion in the Air Force, but is valued less in the Marine Corps. The discussion here attempts to focus on the more generalizable aspects of performance evaluations and board deliberations.

evaluation and only the best qualified will be recommended for promotion. The instructions stress that equal opportunity is an essential element in the evaluation system and that board members must afford all candidates, regardless of race/ethnicity or gender, fair and equitable consideration.

Interviews with board members revealed that most felt that if all indications of race and gender were removed from the file, little change would occur in the board outcomes. However, they acknowledged that, except in the most obvious cases, it was generally quite difficult to distinguish subtle discrimination against an officer from average or weak performance by the officer. Some board members and many women and minorities felt that removing race and gender identifiers might actually *hurt* the promotion chances of women and minorities, as board members would have no context for understanding particularly anomalous performance reports. Some board members expressed a willingness to consider in their evaluations candidates with “slow starts” and “nontraditional” career paths. However, a highly competitive environment can cause board members to use any and all career irregularities in determining which of the candidates to promote. All board members expected officers to overcome “slow starts” relatively quickly, and some members considered “slow starts” to be an indicator of a weaker candidate for promotion.

Nearly all interviewed officers who had been involved with a board proceeding expressed a belief that the boards deliberate fairly and do the best job possible given the materials that are before them. They believed that if members of a group tended to have less success in the board process, it came from the quality of the files presented to the board rather than from differential treatment by the board.

Summary

The Services have adopted elaborate procedures for evaluating their officers, including both objective, job-related factors and other considerations. The performance evaluation is central to the determination of an officer's promotion potential. In the Services' resolve to be fair and as objective as possible in the evaluation process, promotion boards are guided by precepts—or instructions—which are rooted in a DoD Directive governing the policy, responsibilities, and procedures for administering the officer promotion program. With this guidance, the Services have employed a number of policies to ensure that minorities and women specifically are given fair and equitable treatment throughout their careers.

Indeed, nearly all officers interviewed believe the promotion board process is fair. However, career progression by minority officers appears to be hampered by difficulties compiling competitive performance records, which results primarily from weaker precommissioning preparation and more limited social integration.⁸⁰

Most career decisions are based on the results of interactions between individuals. The institution can reinforce or magnify disadvantages that some women and minorities face in the course of individual interactions. Although most officers believe that the promotion boards' review process is fair, many are concerned with how differences in opportunities and styles may affect performance evaluations. The next chapter identifies a number of factors that can lead

⁸⁰ See *Race and Gender Differences in Officer Career Progression*, forthcoming.

individuals to intentionally or unintentionally limit either the opportunities officers are given to apply their abilities or the recognition officers receive for their performance.

Chapter

Equal Opportunity

Perceptions and Interventions

Equal opportunity is a military necessity. It provides the All-Volunteer Force access to the widest pool of qualified men and women, it allows the military to train and assign people according to the needs of the Service, and it guarantees Service men and women that they will be judged by their performance and will be protected from discrimination and harassment.⁸¹

Various aspects of the officer career—recruitment, assignment, career progression, and performance evaluation—have been assessed in regard to the advancement of women and minorities through the officer ranks. In this chapter we examine the perceptions of service members themselves regarding fairness and equity in the military, and review the measures taken by the Services to foster equal opportunity.⁸²

Differences in the Perceptions of Opportunity and Recognition

A number of qualitative studies and surveys have made it clear that race and gender groups view their career experiences from substantially different perspectives. The RAND study, referenced in preceding chapters, found an overall consensus among officers that the career management system benefits some groups over others.⁸³ However, disagreement existed over which groups receive the benefit. Individuals tend to focus on the aspects of the career management system that disadvantage them rather than on those that advantage them. To some minorities and women, discrimination is often clear, and appropriate corrective actions appear necessary. To the majority, discrimination is not always apparent, and corrective actions appear blunt and too broadly applied.

Some White men believe that women and minorities receive preferable consideration in the system. They offer board precepts and other personnel policies that highlight the potential

⁸¹ Defense Equal Opportunity Council, *Report of the Task Force on Discrimination and Sexual Harassment*, Vol. I, Washington, DC, May 1995 p. i.

⁸² For a more detailed discussion of the status, prospects, and key issues for women in the military see Margaret C. Harrell and Laura L. Miller, *New Opportunities for Military Women: Effects Upon Readiness, Cohesion, and Morale* (Santa Monica, CA: RAND, 1997).

⁸³ See *Race and Gender Differences in Officer Career Progression* (Santa Monica, CA: RAND, forthcoming).

need for special consideration of minorities and women as proof of an advantage. On the other hand, minorities and women believe that a substantial number of officers expect them to be less capable.⁸⁴ Further, women believe that some officers do not accept their presence. Most minorities and women believe that they must work harder than their White male peers to receive similar recognition for their performance.⁸⁵

In summarizing a number of studies on discrimination in the military, the GAO found that "Blacks and women tended to hold negative perceptions regarding equal opportunity in the military."⁸⁶ More specifically, "White males had the most positive perceptions about the equal opportunity climate and [B]lacks had the least positive perceptions. Minorities and females generally perceived less opportunity for advancement, promotion, and fairness in discipline."⁸⁷

Similar general conclusions have been reached in various studies and surveys among the individual Services. The Navy Equal Opportunity/Sexual Harassment (NEOSH) Surveys have found that, with regard to perceived fairness in officer assignments, evaluations, and promotions, women, particularly Black women, report somewhat lower levels of fairness than men.⁸⁸

The Army's Spring 1995 Sample Survey of Military Personnel (SSMP) also found differences in the perceived experiences of women and minority officers.⁸⁹ Female officers in the study were more likely to report that they had experienced discrimination in the previous 12 months than were male officers (24 versus 10 percent). Black officers were more likely to report discrimination than were White officers (20 versus 10 percent), with Hispanics and other minorities in-between (15 and 17, respectively versus 10 percent). Black female officers were more likely to report experiencing discrimination than Black male officers (29 compared to 18 percent). Black female officers were least likely to believe promotions and selection for assignments are administered without regard to race and gender.

Two qualitative studies of the perceptions of minority Naval and Marine Corps officers,⁹⁰ conducted at the Naval Postgraduate School (NPS), concluded that almost all

⁸⁴ See Carrie W. Kendrick, *African American Officers' Role in the Future Army* (Washington, DC: Joint Center for Political and Economic Studies, May 1998).

⁸⁵ A special note should be made about the experiences of minority women. Throughout this chapter attention focuses on either minorities or women. The RAND focus groups did not raise any issues relative to minority women that were not also raised for minority men or White women. However, a minority woman faces the disadvantages of being both a racial/ethnic minority and a woman. The effects of this "double jeopardy" were observed in the quantitative analysis in Chapter 5, which indicated that minority women consistently experienced the lowest rates of promotion and retention.

⁸⁶ General Accounting Office, *Equal Opportunity: DoD Studies on Discrimination in the Military*, GAO/NSIAD-95-103, Washington, D.C., April 1995, p. 1.

⁸⁷ Ibid., p. 3.

⁸⁸ 1993 NEOSH data provided were in the form of unpublished tables.

⁸⁹ 1995 SSMP data provided were in the form of unpublished tables, graphs, and text. See also Charles C. Moskos and John Sibley Butler, *All That We Can Be: Black Leadership and Racial Integration the Army Way* (New York: Basic Books, 1996).

⁹⁰ Interviews were conducted with 115 minority Naval and Marine Corps officers (both male and female) at the National Naval Officer Association (NNOA) Annual Convention in July, 1995. NNOA is an outreach group that assists in mentoring Black officers, and in helping them to create networks, as well as in recruiting minority officers for the Sea Services. The Association of Naval Services Officers (ANSO) performs a similar function for the Hispanic community. The project was partially supported by funds from the Office of the Chief of Naval Personnel and the Defense Health Resources Study Center at the Naval Postgraduate School. The results are reported in: James E. Jones, Jr. and Willie J. Stigler, *Survey of Minority Officers in the Navy: Attitudes and Opinions on Recruiting and Retention*, Master's Thesis, Naval Postgraduate School, Monterey, CA, September 1995; and Joseph F. Wade, *Survey of Black Officers in the Marine Corps: Attitudes and Opinions on Recruiting, Retention, and Diversity*, Master's Thesis, Naval Postgraduate School, Monterey, CA, December 1995.

participants in a series of interviews expressed the view that they are somehow held to a higher standard than their non-minority counterparts. As a result, they echoed the perception that they must perform better and work harder to receive the same recognition that is given to White colleagues. Minority Navy and Marine Corps officers were specifically asked to discuss the effect of race, if any, on their career choices and whether their racial/ethnic status had helped or harmed them in the progression of their military career. Rarely did an individual express strictly negative opinions on the effect of race; most comments could be described as "bittersweet." On the one hand, the majority of interviewees took a "stiff upper lip" approach to the problem and remarked that the Sea Services are making progress; yet, many officers concurrently felt that various forms of racial discrimination are still present, despite continuing efforts to create a "color blind" environment.

Most of these minority officers said that the greatest intrinsic reward of their service involved trust in their ability to lead and to perform their duties on a par with, or perhaps better than, majority officers. A number of minority officers mentioned their own personal rewards as a significant source of satisfaction (which is not surprising, considering the prevalent view that these rewards are hard-won). An even greater number of interviewees pointed to the importance of trust in their leadership abilities and the sense of knowing that they are good at their jobs. Additionally, minority officers tended to find great satisfaction, pride, and a sense of accomplishment in directing their subordinates and helping them to get ahead.

An important observation from both the RAND and NPS studies, however, is that officers who felt that they had been discriminated against generally viewed the act as committed by another *individual* rather than perpetuated by the *institution* itself. Despite setbacks, officers usually maintained a positive view of their Service, and they observed that the Services were making positive strides toward equal opportunity. The NPS study observed that a number of officers echoed the sentiment: "*All in all, I have been treated fairly.*" Officers stated that whatever the military is doing, it is doing right, or at least better than its civilian counterpart. Moreover, their behaviors were consistent: three-quarters of the officers in the NPS study definitely intended to stay in Service for a full career, although many had no such intentions when they first joined. In addition, as a recent report on the Navy equal opportunity surveys points out, a solid majority of each race/ethnic and gender group was satisfied with the Navy overall; this included those who had experienced discrimination.⁹¹

Findings from the Army's 1996 Survey on Officer Careers (SOC) showed similar levels of commitment to the Service among race/ethnic groups. Moreover, in contrast to Whites, Black Army officers reported greater satisfaction with supervision, promotions, work, pay, and family issues, but lower satisfaction with co-workers. A significantly higher proportion of Black compared to White officers reported that they intended to stay in the Army long term. Hispanics also reported a high level of commitment, but their attitudes were less favorable than Whites on most other aspects of the Army. Relative to Whites, Black officers reported experiencing a higher fit between their expectations and their duties. Of particular note, Black officers perceived their opportunities for command about the same as Whites.

⁹¹ Paul Rosenfeld, Carol E. Newell, and Sharon Le, "Equal Opportunity Climate of Women and Minorities in the Navy: Results from the Navy Equal Opportunity/Sexual Harassment (NEOSH) Survey," *Military Psychology* (in press).

Female officers had lower organizational commitment, lower propensity to remain in the Army, and lower satisfaction with key aspects of Army life (e.g., supervision, promotion) than males. Women also perceived fewer opportunities for command than men. However, women were more likely to feel that Army pay and benefits are the same or better than in the civilian sector.⁹²

Interactions between Individuals and the Origins of Barriers to Success

The studies cited above make it clear that many minority and female officers, despite their generally favorable view of military service, sometimes feel that they must confront both visible and invisible barriers to their success. Invisible barriers are the non-structural factors that cause employees of an organization to progress more slowly, or not at all, through the promotion system. These barriers act to limit either the opportunities individuals are given to demonstrate their ability or the adequacy of the recognition they receive for their performance. Invisible barriers tend to affect minorities more than the majority group; and, as the term suggests, the impediments to advancement may be so ingrained in the operations of an organization that they are difficult to expose and correct.⁹³

Women and minority officers identified several types of actions by others that they believe can limit their opportunities to apply abilities or receive recognition.⁹⁴ The actions can be categorized into three groups: actions that purposefully exclude an individual; actions that test an individual; and actions that fail to include an individual (these actions generally lack a purposeful intent but may be perceived as purposeful and based on group membership).

Actions to Exclude an Individual. These behaviors generally take one of three forms: verbal harassment; efforts to undermine the ability of an officer to perform duties; and the refusal to recognize an officer's performance or accomplishments. Such actions appear to be an issue primarily for female officers rather than for minority male officers. According to focus group interviews, most women have had a male peer, superior, or subordinate explicitly express a belief that women should not serve in combat roles or even in the military at all. Women in combat-related positions appear to face more challenges to their legitimacy than do women in "traditional" gender roles, such as personnel support.

Most women officers recounted stories of having been subjected to inappropriate comments at some point in their careers. Some comments indicated a direct rejection of a role for women as officers or in combat positions, while others were simply of an inappropriate

⁹² See "Analysis of Differences in Attitudes Toward the Army Among Racial and Gender Groups," *SOC Special Report* (Alexandria, VA: U.S. Army Research Institute), 1997, and "Analysis of Officers' Intent to Remain with the Army," *SOC Special Report* (Alexandria, VA: U.S. Army Research Institute), 1997.

⁹³ One often-cited example of an invisible barrier is the "glass ceiling"—the particular barrier for some groups to receiving promotion beyond a certain level in an organization.

⁹⁴ See *Race and Gender Differences in Officer Career Progression*, forthcoming.

sexual nature. A substantial number of women reported having been subjected to persistent unwelcome sexual advances, inappropriate touching, or clear physical harassment.⁹⁵

Some women reported having been subjected to conscious efforts to undermine their ability to perform duties; both active and passive forms of such behaviors were reported. Instances included the spreading of malicious rumors about an individual, the refusal of a superior to extend standard opportunities to a junior officer, and actions taken to create reasons for issuing negative evaluations of an individual.

Some women and minorities related instances in which they believed other officers had purposefully refused to recognize their achievements or performance. One reported form of this behavior is the verbal denigration of a woman's or minority's achievements. A more severe form of this behavior is the conscious downgrading of a woman's or minority's performance for the purpose of upgrading the performance of another officer. A few women reported that they had been explicitly told by a rater that their ranking had been lowered to benefit another officer for promotion consideration.⁹⁶ The justification given to the officer for this action was that because the rater believed that women and minorities would receive preferential treatment in the promotion process, it was not necessary for them to receive the higher ranking.

The Army Research Institute (ARI) interviewed 41 female captains who had been selected for promotion but who had decided to voluntarily leave the Army.⁹⁷ This study attempted to determine whether there were specific organizational issues that adversely affected these female officers. Though multiple reasons were given for making the decision to leave, the importance of assignments, as discussed in the preceding chapters, loomed. Many respondents cited that jobs available for women were not the "valued" assignments for promotions and that women were not given the opportunity to compete for the good operational or tactical assignments. They indicated that women were not considered for certain kinds of non-combat jobs because senior leadership considered them as "male" assignments. A number of respondents indicated that they were subject to gender discrimination, including verbal expressions of negative attitudes toward women in the Army by senior leaders (e.g., "it's a man's Army"), commanders' refusing to be briefed by female officers, and receiving assignments that would limit their career potential.

Actions to Test an Individual. Some service members believe that it is common for women and minorities to attain their status through preferential treatment or quotas, rather than on the merits of their abilities. This belief was explicitly stated by many White men during focus groups; women and minorities report that this attitude is quite prevalent.

Some White officers expressed the belief that minorities have weak academic and military educational backgrounds. These assumptions are sometimes based on the perception that historically Black colleges provide a lower quality education.

⁹⁵ For more information on this issue, see Lisa D. Bastian, Anita R. Lancaster, and Heidi E. Reyst, *1995 Sexual Harassment Survey* (Arlington, VA: Defense Manpower Data Center, December 1996).

⁹⁶ This practice was reported primarily in those Services where senior raters are required to rank order the officers reviewed, for instance as the third best of the five officers rated.

⁹⁷ See Beverly Harris et al., "Why Promotable Female Officers Leave the Army," *Minerva*, Vol. XII, No. 3, Fall 1994, pp. 1-23.

Another assumption expressed by some officers is that minorities have a weak commitment to their military careers. A common explanation given by White men for the lower probability of Black men to attain certain ranks was the belief that civilian corporations aggressively recruit minority officers to advance their affirmative action goals. The reported lower frequency for requests to combat career fields among minorities was cited by some as further evidence that minorities use the military primarily as a stepping stone to civilian careers. By contrast, the disproportionate assignment of minorities into supply positions and other less technical fields is cited by minorities as evidence of discrimination in the career field assignment process.

Some women officers, too, said that they must cope with perceptions by many of their male counterparts that they are less able officers and less committed to their military careers. Many male officers assume women are less physically capable than men; women who do perform as well as their male peers often face disbelief in, or denigration of, their achievements. The military commitment of women is assumed by some to be low relative to their preference for marriage and children. Efforts made by women to juggle family and job responsibilities can be interpreted as a sign of weak attachment to the military.

Assumptions about the ability and commitment of women and minorities may lead some officers to subject them to intense scrutiny or undue testing, particularly at the beginning of a new assignment. Women, in particular, expressed the view that they had been tested in ways that their male colleagues had not. Such tests, in their view, generally center around the officer's physical skill or emotional responses, rather than one's ability to perform the duties of the particular job. "Testing" tends to be a one-time practice; in fact, many women who passed their "test" stated that they were subsequently treated quite well by their peers or superiors. However, regardless of the subsequent treatment, women who had been "tested" generally felt that they had been unfairly held to a higher standard than their male peers.

Few White men reported ever serving under or with minority or female officers. The sense of unfamiliarity with women and minorities often puts such officers "in the spotlight." The spotlight magnifies the attention given to their mistakes and reinforces the perception that they must outperform their peers to receive similar recognition. The spotlight can also lead others to notice and comment on otherwise unimportant aspects of behavior, such as when several minorities or women congregate socially. In contrast to testing behaviors, this intense scrutiny tends to continue throughout the duration of one's assignment.

Actions that Fail to Include an Individual. Interpersonal relationships are more likely to form between individuals who share common social interests, backgrounds, or motivations. The greater the apparent or perceived difference between individuals, the less comfortable individuals initially feel toward others. A lack of comfort with a group of individuals can lead to a failure to include these individuals in work or social activities, thereby limiting their ability to develop peer and mentoring relationships. Peer and mentoring relationships provide access to valuable information and resources as well as visibility, thereby affecting both performance and recognition. Mentoring has long been considered an important factor in determining an individual's success within an organization. The RAND study found that many minorities and women believe that they have been excluded from these career-enhancing relationships as a

result of the large social and cultural differences that American society ascribes to different racial/ethnic or gender groups. A common sentiment expressed in discussions with officers was the belief that "like helps like."⁹⁸

Although Black officers believed that the promotion board deliberations were fair, given the information that is presented to the board, they also believed that lack of mentoring and the resultant difficulty in obtaining career-enhancing assignments limited their ability to develop a competitive career record for promotion boards to consider.⁹⁹ Consistent with the RAND study, the Army's Spring 1995 Sample Survey of Military Personnel (SSMP) found that Blacks were less likely than Whites to report being mentored. The SSMP also found that male and female officers were equally likely to report having been mentored. Yet the survey also found that some 40 percent of all Army officers report never having been mentored.

A special mentoring program called "Rocks," however, exists outside the Armed Forces to increase the pool of Black junior officers.¹⁰⁰ Its primary purpose is to offer them support, guidance, and information necessary for advancement within the military system. General Colin Powell observed that association members "... wanted to help young Black officers up the career ladder, give them the inside dope on assignments good and bad, tell them about commanders able or incompetent, and talk up promising candidates to the right people.... The spirit of Rocks appealed to me. They looked out for me along the way, and, in turn, I tried to spot young Black talent and help these officers realize their potential."¹⁰¹

For minorities and women, though, the failure to be included in social bonding activities can be perceived as a rejection by one's peers. Yet, many minorities and women also expressed limited desire to participate in both informal social activities arranged by peers and formal social activities arranged by the organization. Thus, the individual sometimes rejects participation in the group's bonding activity. The underlying motivations for these two actions (social rejection *by* the group in contrast to social rejection *of* the group) may be substantially different, yet the effect on one's career can be quite similar. Both actions can weaken the ability of an individual to form peer and mentor relationships, thereby limiting an individual's access to important informal information and resources.

Some male officers have become overcautious in interacting with women out of a fear of being accused of discrimination, harassment, or other inappropriate behavior. Both men and women reported that some men are hesitant to criticize the performance of women, believing that the criticism will be construed as discrimination. Both the men and women interviewed acknowledged that as a result of such constrained interactions, women may fail to receive the immediate feedback necessary for an improvement in performance.

⁹⁸ At the same time, the intense scrutiny applied to the actions of women and minorities can inhibit their desire to help other women and minorities. The result is a feeling among some that "like can't help like" for all others. In fact, some women and minorities report that the hardest officers they have had to deal with have been other women and minorities.

⁹⁹ See *Race and Gender Differences in Officer Career Progression*, forthcoming. See also, Kendrick, *African American Officers' Role in the Future Army*, pp. 20-21.

¹⁰⁰ This is an association of Black senior officers founded in 1974 named after the late Army Brigadier General Roscoe "Rock" Cartwright who was a role model and mentor for many Black officers in the 1960s. See Moskos and Butler, pp. 50-1, for a more detailed explanation of Rocks.

¹⁰¹ Colin Powell, *My American Journey* (New York: Random House, 1995), pp. 160-1.

The hesitancy among some men to interact with women extends to other types of one-on-one interactions as well. Some male officers leave office doors open during discussions with women or consciously bring a second female officer in for discussions. Further, some senior male officers appear to reject outright the candidacy of a female officer for positions that would put her in close contact with the male officer. According to the interviewees, these categorical rejections appear to be based less on assumptions regarding the capabilities of female officers than the desire to avoid either situations that might lead to charges of discrimination or the appearance to others of an inappropriate relationship.

Organizational Culture The Importance of Fitting the Mold

Behaviors deriving from cultural backgrounds that differ from the dominant culture may raise barriers to achieving a successful career.¹⁰² Further, individuals who violate organizational cultural norms may be less likely to receive the informal feedback or be included in other informal decision-making processes. Organizational culture, as defined by the General Accounting Office, is the collection of underlying assumptions, beliefs, values, attitudes, expectations, and preferred work styles shared by an organization's members.¹⁰³ The military organization, in particular, has a culture that is very much its own; and it has a structured resocialization process designed to inculcate its norms, goals, traditions, and expected behaviors in new members beginning on the day they enter.

The institutional character which has endured in the military—historically, an organization led by White men—may make the assimilation of women and minorities into leadership positions a challenge. As a Marine Corps study observes, assimilating these new members can be difficult “in ways we don’t fully understand.”¹⁰⁴ Marine Corps culture and institutional character are merely a reflection of historical traditions. The following quote from the report illustrates this point:

Our culture is also one that would find nothing unusual about a Marine going on liberty in a cowboy hat and cowboy boots but it would probably consider it quite unusual if a Marine headed for liberty in an African robe and round hat. All of this seems very normal to most Marines because it’s simply a reflection of where we came from—at least it’s where most of us came from!¹⁰⁵

The phrases “fitting the mold,” “lack of common interests,” and “fit in with the majority to get ahead” represent some of the comments often repeated by participants in interviews conducted by the House Armed Services Committee (HASC) Task Force on Equality of

¹⁰² Roosevelt Thomas, et al. “Impact of Recruitment, Selection, Promotion and Compensation Policies and Practices on the Glass Ceiling.” Paper prepared for the Glass Ceiling Commission (Washington, DC: US Department of Labor, 1994).

¹⁰³ General Accounting Office, *Organizational Culture: Techniques Companies Use to Perpetuate or Change Beliefs and Values*, GAO/NSIAD-92-105, Washington, DC: February 1992.

¹⁰⁴ US Marine Corps, *Final Report of the Quality Management Board on Assessing and Screening Marine Officer Candidates*, June 1993.

¹⁰⁵ Ibid., p. 63.

Treatment and Opportunity in the Armed Services.¹⁰⁶ In general, the HASC found that minorities believed that they had to try to become “one of the good old boys” to obtain favorable consideration. The task force felt that the perceptions appeared to be validated to some extent by majority members who commented negatively on innocuous cultural expressions such as music choice, hairstyle, off-duty dress, and choice of leisure activities.¹⁰⁷

At the same time, a 1988 study by the Navy found that some minorities experience an especially difficult adjustment to the military environment because acculturation occurs in an unfamiliar majority environment. Unlike formal policies and procedures, culture is not explicit and must be gradually learned. The particular culture of an organization has ramifications for how individuals fit and become socialized to its values and expected behaviors. Officers entering the system need to quickly conform to the military culture to be successful. Thus, the acculturation process tends to have a limiting effect on individuals who do not “fit” at the accession point (i.e., minorities and women), favoring those who resemble others who have previously succeeded in the institution. Further, minority officers who had limited earlier interaction in a predominantly White environment faced the added burden of performing quickly at the social cultural level expected by the Navy. This resulted in some minority officers—especially those who lacked mentors—experiencing the “late bloomer” or “slow starter” phenomenon that was reflected in their performance appraisals and eventually slowed or inhibited their career progression.¹⁰⁸

Some of the problems faced by women and minorities stem from the small proportion of the officer population these groups comprise, rather than their specific race or gender status. As a result, some problems might equally apply to White males in a company or unit where *they* are the numeric minority. In a study of women in corporate settings, Kanter notes that the problems of numeric minorities tend to occur where they comprise 15 percent or less of a work group or organization.¹⁰⁹ As the group approaches 35 percent, their social experiences improve. Beyond this “tipping point,” members of a numeric minority group find it easier to form support networks and coalitions and to influence the organizational culture. Given the current levels of representation in the officer corps, it is relatively rare for any minorities or female officers to find themselves in a setting where their representation surpasses this “tipping point.”

Unintentional Effects of Institutional Policies and Practices

The disadvantages that women and minorities experience in the course of individual interactions are not always correctable through policy. Exclusionary behaviors can be prohibited, but, in general, individuals cannot be instructed to engage in *inclusive* behaviors. The underlying attitudes that determine the behavior of individuals in an interaction cannot be directly altered by changes in policy. Yet the institution shapes the environment within which interactions occur.

¹⁰⁶ The HASC Staff Task Force on Equality of Treatment and Opportunity in the Armed Forces conducted a series of interviews/discussions with approximately 2,000 active duty service members at 19 military facilities in the Continental United States, Europe, and Asia. The anecdotal results were published in the report, *An Assessment of Racial Discrimination in the Military: A Global Perspective*, December 1994.

¹⁰⁷ The importance of cultural differences is also discussed in Remo Butler, *Why Black Officers Fail in the U.S. Army* (Carlisle Barracks, PA: U.S. Army War College, 1996).

¹⁰⁸ U.S. Navy, Chief of Naval Operations, CNO Study Group's Report on Equal Opportunity in the Navy, 1988.

¹⁰⁹ Rosabeth Moss Kanter, “Numbers: Minorities and Majorities,” in *Men and Women of the Corporation*, Chapter 8 (New York: Basic Books, 1977).

This being the case, the institution can act in ways that reinforce or counteract prevailing attitudes. Over time, change can occur in the attitudes of many individuals if institutional policies and practices are clear and consistent with regard to the legitimacy and ability of group members.

However, caution must be observed when setting policy, as policies designed to counteract disadvantage may sometimes reinforce the stereotypes that cause disadvantage. Officers in the RAND focus groups identified several policies that were explicitly developed to create opportunities for women and minorities, but which are perceived to have had a number of unintended consequences. An example of this situation is the precepts given to Army promotion board members stating a goal of achieving equal promotion rates for women and minorities compared with the rate for all officers. Because few White males perceive that the system would be biased against a woman or minority, many White males interpret these precepts as encouraging the promotion of otherwise less qualified minorities and women. As a result, the precepts act to reinforce the preconception among some that women and minorities tend to be less qualified.

Another example lies in the practice of disproportionately placing minorities and women in recruiting, ROTC, and equal opportunity billets in the belief that their presence in such positions enhances the accession and retention of minority and female officers. Yet this practice leads some officers to consider such jobs as "minority" or "female" assignments, a perspective that often devalues strong performance in such assignments. Further, the practice can hinder the ability of minorities and women to develop competitive career records if it removes them from their designated career fields for an inappropriate period or an inopportune time. Finally, the practice potentially limits the number of minority and female officers available to serve as peers, mentors, and role models for junior officers "in the field," the place where peer support and mentoring may be most valuable.

The Services have developed a number of programs to draw talented minorities from the enlisted corps. (See Chapter 3 for more on sources of commissioning.) Although these programs may increase the initial representation of minorities in a commission cohort, they constrain minority representation as the cohort progresses to senior ranks. Because enlisted service counts toward retirement, relatively few prior-enlisted personnel attain rank above O-4, regardless of race. Thus, the disproportionate number of minority officers with prior-enlisted service does not serve to increase minority representation in an officer cohort above the rank of O-4.

Another well-intentioned program with unintended results is the practice of maximizing the exposure of men to women officers. It was reported to be common practice in the Marine Basic School to distribute female officers across companies to increase the proportion of male Marines who have served with female officers. This practice is based on the belief that such exposure will increase the respect that male officers hold for their female peers. At the same time, however, some women reported that they felt quite isolated in situations as the "only woman." Thus, while the policy may positively affect male attitudes, it may also increase the difficulty for women to develop peer support networks during an important period of acculturation.

Finally, conflicts between career and family responsibilities are disproportionately felt by women. Dual-military career marriages are often stressful, particularly if co-located assignments prove difficult. Women are more often expected to place their careers as subordinate to their partners. Childcare represents an even greater stressor. The availability and hours of operation of military daycare centers may not accommodate the work schedule of officers. Officers with childcare responsibilities report that it can be difficult to participate in early morning PT exercises or to work late in the evening when childcare centers open late or close early. Officers expressed the view that some senior leaders make it unnecessarily difficult to manage both work and family responsibilities because of their expectations regarding when and how work must be done. Further, stereotypes regarding the commitment of a female officer to her military career can be reinforced when she questions such expectations.

These criticisms are not offered to suggest that the policies or programs described above should be eliminated. In fact, RAND found that few female and minority focus group participants felt that it would be wise to remove policies to promote equality of treatment and outcomes at this time. The evaluation of whether the intended beneficial outcomes of each of these policies is greater than their negative consequences for women or minorities is beyond the scope of this study. This discussion is merely intended to raise awareness of possible unintended consequences of policies as reported in the focus group interviews.

Assessing the Equal Opportunity Climate

Because of the importance of the equal opportunity (EO) climate and its potential effects on the performance evaluation process and career progression, the military Services routinely assess equal opportunity and mandate equal opportunity training designed to prevent discrimination, harassment, and other unprofessional behavior.

Commanders are accountable for, and required to assess, their unit's equal opportunity climate, preferably as part of their assumption of command, and periodically through follow-up assessments during their command tenure. Among the methods that can be used to assess climate are surveys, focus group or individual interviews, observation, complaints, if any, and reviews of records and reports (e.g., race and gender distributions of those receiving awards).¹¹⁰

Each of the Military Services is also required to provide selected personnel statistics to the Office of the Secretary of Defense on an annual basis. This compilation of data with accompanying analysis is displayed by race/ethnicity and gender, and is referred to as the Military Equal Opportunity Assessment (MEOA). Underlying this requirement is the belief that indicators of fairness and equity for all Service members should be examined on an annual basis and reported to OSD for review and comment. The following areas are assessed by race/ethnicity and gender for officers and enlisted personnel: recruiting/accessions; composition of the force; retention; professional military education; command assignments; promotions; separations; equal opportunity and sexual harassment complaints; utilization of skills (distribution of officers and enlisted personnel across branches); and discipline. These

¹¹⁰ DoD Directive 1350.2, p. 2-1.

and other data serve as tools for monitoring the equal opportunity climate and to formulate affirmative action plans.

Perhaps an area showing the greatest divergence in perceived reliability is the complaint system. Many women and minorities in both focus groups and surveys consistently expressed fears of suffering reprisal, being discredited, or having their complaint ignored. Some officers, including some women and minorities, believe that EO complaints are sometimes without merit. "A number of focus groups with officers and senior-ranked enlisted members said that too many EO complaints were unfounded and were filed by nonperformers as a defense against corrective action being taken against them for not doing their job."¹¹¹ The "zero defect" mentality, mentioned in the previous chapter, is also a cause for concern. A recent Army report noted "Zero-defect is viewed as no tolerance for mistakes, no opportunity for recovery, and a demand for perfection. This concern with failure avoidance can lead to subordinates insulating superiors from bad news for fear of unwanted attention or criticism, soldiers discrediting the chain of command for failure to take decisive action on equal opportunity complaints, or the chain of command labeling soldiers who file complaints as malcontents and whiners."¹¹² The Services are working to reduce the fear of reprisals by building in follow-ups and feedback to the complainant in their EO and sexual harassment complaint systems.

Summary

Results from focus groups and interviews converge on issues regarding barriers to the advancement of minority and women officers. Some minorities and women feel they are held to a higher standard than their majority or male colleagues, respectively; and they correspondingly feel that they must work harder to achieve the same recognition or honors that come much more easily to others. Similarly, minorities and women perceive that they are sometimes viewed as less knowledgeable, less capable, and less willing to work as hard as their respective counterparts. Some minority group members and, especially women, report that they must pass "tests" to establish their worth on the job, or "educate" coworkers regarding their beliefs about one's race or gender. Other related issues include the idea that minorities and women are less dedicated to their jobs—more specifically, that minorities are easily lured away from the military by the corporate sector and that women necessarily place more emphasis on their families. Despite these concerns, data from various sources, including both the RAND and NPS focus group studies, as well as the extensive focus group interviews conducted by the General Accounting Office and the Army, indicate that, overall, the military provides a career-enhancing environment for service members.

Policies that appear preferential toward minorities (e.g., promotion boards) are often viewed with suspicion or hostility by Whites. Additionally, certain officer sources, such as ROTC, may be viewed as "minority" or "female" paths, which could devalue their worth in promotion consideration. Minorities and women often feel that policies designed to protect them

¹¹¹ General Accounting Office, *Military Equal Opportunity: Problems with Services' Complaint Systems are being Addressed by DoD*, GAO/NSIAD-96-9, Washington DC, January 1996, p. 22.

¹¹² *The Secretary of the Army's Task Force on Extremist Activities: Defending American Values*, Department of the Army, March 21, 1996, pp. 15-16.

from harassment or discrimination are not taken seriously, or when pursued, can seriously diminish one's chances for advancement. A variety of other policies—such as women being isolated from other women (in order to maximize the exposure of men to women officers), policies relating to the family, and the common practice of assigning women and minorities to EO or stereotypical human resource jobs, are seen to do as much harm as good for the career advancement of women and minorities.

Finally, it is important to note that officers who felt that they had been a victim of discrimination believed that the act was committed by an *individual* rather than by the *institution*. Many felt that, although there were improvements to be made in making the military more equitable, the Services had done much to advance equal opportunity. Minorities generally felt that the equal opportunity environment would be no better, and possibly worse, in the private sector. There was no significant racial or gender difference in the reported satisfaction with military life, and the majority of minority officers reported that they intended to stay in the military for a full career.

Chapter

Further Actions

Racial/ethnic minorities and women have made substantial progress in the military's officer corps over the years. When the All-Volunteer Force began in 1973, the percentage of minorities and women in the active duty officer corps stood at 4.2 and 4.3 percent, respectively, with Blacks making up 2.8 percent of all officers. By the end of 1997, representation among officers stood at 14.1 percent for women and 15.3 percent for minorities with Blacks comprising 7.5 percent of all commissioned officers. Not only are the proportions of women and minorities on the rise in the officer corps, but when weighed against the proportion of college graduates who are minorities, the military compares favorably and progress is evident. Even during the recent defense drawdown, the proportion of minority and women officers increased in nearly all grades for all Services. Of note within the general and flag officer ranks, the proportion of minorities and women increased over the last decade. Such success is no doubt influenced by the concerted efforts of the Military Departments, including special recruiting outreach programs and scholarships to attract minorities, and the expanding opportunities for women.

Access to All Stages of the Officer Corps

The data used in this study to track retention and promotions indicate there have been differences in officer career progression by race/ethnicity and gender. Black men, other minority men, and Black women were less likely than White men to be promoted to all paygrades through O-5. Conversely, Black men were more likely to be retained between promotions. Women were less likely to be retained, especially at the mid-career point between paygrades O-3 and O-4. However, those Black men and White women who were promoted to O-4 were as likely to reach paygrade O-6 as White men.

Minority officer recruiting will continue to be vital to success in achieving proportional representation in the officer corps. There is a need for continued emphasis on programs to access minority officer candidates with strong academic backgrounds. Increasing the numbers from those populations is important because advancement to the senior officer grades will continue to be difficult for them unless they are competitive with White men. Because of differences in academic achievement and school quality, minorities are not always as initially prepared as White men for promotion through the ranks in the occupational specialties leading to general and flag officer.

Job assignments are also a significant factor in determining an officer's career progression. Many minorities are at a disadvantage in early career assignments because of differences in commissioning source, selectivity of colleges attended, and educational patterns (academic major and GPA). As a result, minorities face obstacles in getting certain assignments that are considered career enhancing. For example, the Navy case study found that minority officers who entered the surface warfare community were less likely to be assigned to major combatants, were less likely to become qualified as surface warfare officers, and as a result received lower fitness report scores than their White peers. Lower fitness report scores, in turn, were linked to lower promotion probabilities to the critical O-4 paygrade.

The key issue for understanding the more limited career progression of minority officers appears to be their difficulties compiling competitive performance records. This may result from more limited social integration and, on average, weaker precommissioning preparation. An officer can overcome a "slow start," but he or she must do it early in the career. However, precommissioning differences between Whites and minorities do not explain all the differences in career progression. Another critical factor is the greater difficulty minority officers have in gaining access to peer and mentor relationships, which are important for succeeding in one's current assignment and for opening future career opportunities.

Precommissioning factors as well as job restrictions may also impede women. For example, their measured math and science aptitude levels lag behind their male counterparts and they are less likely to pursue technical courses of study in college. However, more fundamental to women's access to the officer corps is the continuing debate regarding the role of women in the military.

Areas for Additional Action

1. The Military Services should explore the possibility of recruiting promising minorities *before* the senior year in high school. For example, by using the DoD Student Testing Program—in which the military offers career exploration through the administration of its vocational aptitude battery and a career interest inventory free-of-charge in high schools nationwide—high-scoring students could be targeted and "preselected" for a potential career as an officer.

2. The Services should make a concerted effort to get the members who are not officially assigned to recruiting more involved in the process. There are no better role models or ambassadors of our officer corps than officers themselves. Minority officers, particularly, can play a critical role in recruiting. Members should be asked to look for highly qualified minorities (both in and out of service) with officer potential, and should be knowledgeable enough to suggest a commissioning program. A system could be devised whereby minority officers should be sent back to their college campuses for a period of time. Black and Hispanic officers should be encouraged to remain active in their *alma maters*, alumni associations, and fraternities and sororities, giving them access to important campus officials as well as the students themselves.

3. Historically Black colleges and universities should continue to be a source for minority officer candidates. However, the Services should place more emphasis on also attracting minority candidates into other universities' ROTC programs.

4. Research on group dynamics has shown that small group members tend to be more visible (on display), feel more pressure to conform (make fewer mistakes), find it harder to gain "credibility" (particularly in senior positions), be more isolated, and be more likely to be excluded from informal networks. This is why it is important for the Services to undertake a more concerted effort to access highly qualified minority and female officers in sufficient numbers to create a critical mass in certain occupations and units. One way of doing this might be to refocus attention on ways to attract minorities with the requisite education and preparation for technical and career-enhancing occupations. Some existing program resources could be redirected toward developing innovative outreach programs toward this end.

5. OSD and the Services should ensure that their recruiting campaigns are targeted effectively to specific minority communities with the appropriate messages about the opportunities and rewards of commissioned service. The Services and OSD should work with appropriate representative organizations such as the National Naval Officers Association (NNOA), the Army "Rocks," and the Air Force Cadet Officer Mentor Action Program (AFCOMA) to assist in developing and delivering the messages to their constituents.

6. Anecdotal accounts of communication skills deficiencies among HBCU graduates should be systematically assessed. If verified, ROTC programs at HBCUs must place greater emphasis on enhancing communication skills, both speaking and writing. Because communication skills are a factor in career progression decisions, efforts should be made to ensure that minorities are competitive with Whites. ROTC programs may also benefit from more emphasis on mathematics and other basic skills to remedy academic deficiencies. The Army's Enhanced Skill Training program is an example that should be replicated and expanded throughout the Departments.

7. The Military Services should examine the causes of the trend of declining propensity to join ROTC (particularly among Black men), and implement policies to reverse the decline.

8. Minorities and women junior officers may be at a disadvantage in obtaining information (formally and informally) about occupations, job assignment strategies, avenues of advancement, and interpretation of performance evaluations. Much of the information is available if one knows where to look, but more effective ways to disseminate it would be of value. The Services should continue to expand the role of outside support organizations such as "Rocks", NNOA, and AFCOMA. Their efforts should not only focus on minority programs within the Services, but should also provide direct outreach to the appropriate communities to expand the pool of qualified applicants. After junior officers have been commissioned, these groups can provide mentoring and support for advancement within the military system.

9. The Services should assess the extent to which the assignment of minorities and women to certain fields (ROTC, recruiting, equal opportunity) inadvertently hinders their

career progression and availability to serve as peers, mentors and role models for junior officers "in the field."

10. The Military Services should continue to support programs such as Junior ROTC and JROTC Career Academies. Although not recruiting programs, these initiatives instill within high school students leadership, citizenship, discipline, responsibility, and self-esteem—traits valued in the military as well as in the private sector. These programs also provide a positive image for young people with no previous experience with the military, as well as a continuing presence of the military in the education community.

Low Representation in Certain Occupational Areas

There remain several occupational fields—and specific assignments within fields—with seemingly stubborn obstacles to entry for minorities and women. The Navy case study highlighted the importance of college background, especially grade point average, in determining one's initial assignment and the critical role of that assignment to the ultimate success of the officer. In most Services, it appears that the order of merit of a newly commissioned officer is the main determinant of initial occupational assignment, and grade point average is a major factor in the merit index. Minorities often enter with less competitive academic backgrounds whereas women face a different problem: their integration into nontraditional occupations has not been fully accepted.

Fixed wing aviation is a field of particular concern. Aviation is rewarding in terms of both military career progression and a subsequent civilian career. Achieving adequate minority representation in high skill occupations such as aviation is an important indicator for gauging the success of equal opportunity programs in the military. The various stages of the aviation career path—selection for flight school, training, and promotion—indicate different outcomes at each stage between Whites and minorities and between men and women. The overall pattern for minorities shows a lower proportion selected for aviation and higher attrition in flight school for those who are selected—resulting in a strikingly low entry rate into the aviation career field. This pattern has persisted over the past 15 years. Selection for aviation is based on individual educational background, test scores, and physical qualifications, as well as personal choice.

Some improvement in the opportunities for minorities in fixed wing aviation and other tactical fields may be expected to occur solely because of their increased numbers in the junior grades. However, if past patterns of educational achievement and occupational assignments are not altered, then the progress of women and minorities may continue to fall short of their majority counterparts in aviation. Even with the suggestions below, progress will be slow, but a concerted effort will steadily increase the percentage of minorities within these occupations. The recent removal of restrictions on women in combat aviation will allow their numbers to increase accordingly.

Areas for Additional Action

1. The relationships among occupational assignments, job assignments, and officer performance should be studied more intensively. The Army, Navy, and Marine Corps should examine how accurately one's order of merit (or lineal ranking) predicts performance as a junior officer in operational billets, independent of assigned occupation. A related study would be to explore alternative assignment rules in which the emphasis on grade point average is reduced. The Marine Corps currently assigns officers to occupational areas based on a lineal list—but distributes the list evenly across career fields. This approach indirectly helps to ensure that representation across occupations is also balanced. The Marine Corps system should be compared to the methods used in the other Services to determine whether subsequent differences in performance or retention are associated with the method of assignment.

2. Because the selection standards are high for aviators, there is little that can substitute for a strong academic background. The Service Academies and ROTC programs should expand their efforts to seek minority and women students who demonstrate high aptitude for and interest in aviation. In addition, without compromising standards for flying performance, the Services should review flight school selection board procedures to ensure that applicants with a strong academic records who desire to pursue aviation are not excluded on the basis of the flight school entrance exams alone.

3. Mentoring programs are particularly important in directing and counseling minorities and women in occupational areas where their representation is persistently low—tactical operations in general and aviation in particular. Although mentoring programs are difficult to implement on a wide scale, the Services should investigate selective opportunities for mentoring and follow up with evaluations of program efficiency and effectiveness.

4. Developmental programs can be used to encourage officer interest and adaptation within specific career fields such as aviation. The recent partnership between the Air Force and Delaware State University is one such approach. The goal of the program is to prepare minority students to return to their ROTC units with some skills and the motivation to pursue a successful career as an Air Force pilot. Students are selected from ROTC programs at HBCUs—based on interest, aptitude, and qualifications for pilot training—to attend a 10-week course in aviation and aerospace studies; they test for a pilot's license, and also receive instruction in non-flying activities such as aircraft maintenance.

The Dilemma of Perceptions and the Equal Opportunity Climate

Information from focus groups and attitude surveys indicates that career progression and overall success as an officer are primarily a function of job performance. Furthermore, most officers regardless of gender or race/ethnicity believe that promotion board reviews of performance records are fair, and the military is seen as providing equal opportunity to a greater extent than the civilian sector. Yet, despite their generally favorable views of the

military, minorities and women perceive visible and invisible barriers to their success. Factors other than actual job behaviors or outcomes can affect evaluations of performance.

Minorities and women have reported being “tested” or held to a higher standard and not being included in relevant social interactions. They are sometimes seen as not conforming to traditional styles or organizational norms, yet often they are not given appropriate feedback in this regard. Their relatively small proportions impede support networks. Minorities say they are less likely to receive mentoring. Also, disproportionate assignments to recruiting, ROTC, and equal opportunity billets may detract from minorities and women establishing their own competitive career records. Women face additional obstacles in that they are assumed to be less effective in leadership roles and less committed to their careers than men. Although women and minorities felt that they are at times seen in terms of group membership rather than on the basis of individual merits, they indicated that discrimination comes from *individuals* rather than the *institution*. Although they agreed that progress has been made, assimilation and adjustment of minorities and women remains a challenge. For women and minorities, adaptation to a majority culture as demanding as the military may have dampening effects on morale, career progression, performance, and readiness.

Areas for Additional Action

Less tangible than recruiting, assignment, retention, and promotion, but important nonetheless, are the organizational climate and perceptions regarding race, gender, and equal opportunity. Perceptions predispose behavior and thus affect an officer’s likelihood of success. There are several ways to narrow the differences in perceptions between White men and women and minorities:

1. One of the most important duties of senior military officers is to prepare junior officers to become senior leaders. The equal opportunity curriculum of the Services’ professional military education programs (i.e., intermediate service and senior service schools) should be evaluated to determine the extent to which their training is explicit and appropriate in covering not only blatant discrimination and harassment, but more subtle discrimination (e.g., exclusion of women and minorities in social networks). The evaluation should also assess the inclusion of techniques for mentoring and preparing minority and women officers for the challenges of senior leadership. Any deficiencies in equal opportunity training should be corrected accordingly.

2. The importance of equal opportunity must continue to be instilled in future military leaders at the earliest possible point in their development. Equal opportunity issues should be strengthened within the Honor Code and Ethics curriculums for all commissioning programs. Relevant scenarios, case studies, and role plays should be developed that would give officer candidates the opportunity to “experience” how discrimination and harassment violate the Code and ethical treatment of others. This training and focus should be continually reinforced and convey that equal opportunity infractions are considered to be Honor Code violations.

3. Data from the Military Equal Opportunity Assessment (MEOAs) should be analyzed and included in an annual report. The Deputy Assistant Secretary of Defense for Equal Opportunity (DASD [EO]) should develop in-house staff capable of providing analysis and

feedback to the Services. The MEOA reports and analyses should result in recommendations for actions to remedy identified disparities and improve the Services' Affirmative Action Plans.

4. Visible, sustained senior-level command participation in equal opportunity training programs remains necessary. This applies to all levels, to include the smallest unit. The "rank and file" need to see the leadership take this issue seriously and participate actively. Concomitantly, equal opportunity training must be reviewed and improved periodically.

Other Areas for Action

1. Practical performance measurement and assessment research on officers should be conducted to ensure that selection and evaluation processes are both efficient and effective, and based on criteria that more fully account for critical and important performance dimensions. A more accurate assessment of these dimensions—such as technical proficiency, general military proficiency, communication, interpersonal skills, leadership, and supervision may result in a better weighting scheme for performance measurement. Such performance measurement research may lead to a different balance between cognitive and non-cognitive predictors.

2. Monitoring and studying the various phases of officer career progression would be improved by the development of databases that are both more readily accessible and more comprehensive. First, the DASD (EO) must improve its data collection and analysis capabilities through developing an efficient management information system. Second, tracking progress in the officer corps requires the analysis of cohorts—following officers throughout their careers—not simply taking statistical snapshots of the corps at various times. The conditions and career progression of today's O-3s are different from the O-3s of 10 years ago. The Military Services, in concert with the Defense Manpower Data Center, should construct these panels of cohorts. The improved longitudinal data would permit more sophisticated analytic techniques to be applied and would provide for more accurate and comprehensive analyses. For example, the Services should be asked to provide for each officer: university attended, major, GPA, SAT scores, distinguished ROTC graduate, order of merit, occupation "wish list," results of tests given at entry (e.g., for pilots), key job assignments, whether considered by promotion board at each level by zone, whether selected for promotion by zone, and evaluation ratings.

3. Research on issues relating to the full integration of women officers needs to be conducted. Although this report did not focus on direct commissions, a disproportionately large number of women enter the officer corps this way. For example, about one-half of female Army officers are assigned to the special branches. A separate officer study is needed to examine opportunities for career progression of majority and minority women beyond these branches. Similarly, the progress of minority and female officers in the Reserve Component, including the National Guard, requires a special study. For example, the impact of family responsibilities on women officers' career progression should be studied with the goal of determining the degree of flexibility that is compatible with the military mission.

Post Script

Substantial, continuing efforts to provide equal opportunity have proved to be effective in contributing to the success of the All-Volunteer Force. The recruitment, selection, assignment, training, retention, and development of qualified men and women from diverse racial/ethnic backgrounds, while challenging, are both required by the demands of fairness and by the demands for maintaining the highest levels of individual productivity and military readiness.